

U.S. Department of Transportation
Research and Innovative Technology Administration
Intelligent Transportation Systems Program Advisory
Committee

Meeting of the

Intelligent Transportation Systems
Program Advisory Committee

Taken before SANDRA M. LEE

CSR No. 9971

January 6 and 7, 2011

1 MEETING OF THE ITS PROGRAM ADVISORY COMMITTEE

2
3 BE IT REMEMBERED, that on the 6th day of January
4 2011, commencing at the hour of 1:00 p.m., at the Joseph
5 P. Bort MetroCenter Auditorium, 101 Eighth Street,
6 Oakland, California, before me, SANDRA M. LEE, a
7 Certified Court Reporter, the following proceedings were
8 taken.

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10 APPEARANCES:

11 **Mr. John Augustine**
12 Managing Director
ITS Joint Program Office

13 **Mr. Steve Albert**
14 Director
Western Transportation Institute
Montana State University

15 **Mr. Scott F. Belcher**
16 President
ITS America

17 **Mr. Robert Bertini**
18 Acting Director
ITS Joint Program Office

19 **Ms. Valerie Briggs**
20 ITS Joint Program Office

21 **Mr. Joe Calabrese**
22 General Manager
Greater Cleveland Regional Transit Authority

23 **Ms. Robin Chase**
24 Founder & CEO
Meadow Networks

25

1 APPEARANCES (Continued):

2 **Mr. Brian Cronin**
ITS Joint Program Office

3 **Mr. Bob Denaro**
4 Committee Vice Chairman
Vice President
5 NAVTEQ

6 **Dr. Adam Drobot**
Managing Director and CTO
7 2M Companies

8 **Ms. Ann Flemer**
San Francisco Metropolitan Transportation Commission

9 **Dr. Genevieve Giuliano**
10 Senior Associate Dean for Research and Technology
USC School of Policy, Planning and Development

11 **Stephen Glasscock**
12 Program Coordinator
ITS Joint Program Office

13 **Mr. J. Peter Kissinger**
14 President and CEO
AAA Foundation for Traffic Safety

15 **Chris Pangilinan**
16 Research & Innovative Technology Administration

17 **Dr. Joseph M. Sussman**
Committee Chairman
18 Massachusetts Institute of Technology

19 **Dr. Peter Sweatman**
Director
20 University of Michigan Transportation Research Institute

21 **Mr. Gary Toth**
Senior Director, Transportation Initiatives
22 Project for Public Spaces

23 **Mr. Vince Valdes**
Associates Administrator for Research
24 Federal Transit Administration

1 APPEARANCES (Continued):

2 **Carlos R. Velez, Jr.**
3 Project Manager
Citizant

4 **Mr. James Vondale**
5 Director, Automotive Safety Office, Sustainability,
6 Environmental and Safety Engineering
Ford Motor Company

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DAY ONE - JANUARY 6, 2011

1 MR. SUSSMAN: We've been at it for a few hours
2 already, but we are now officially in session as the ITS
3 program advisory committee meeting here in Oakland,
4 California, today, January the 6th, and tomorrow through
5 noontime.

6 Let me begin just by thanking Ann and her
7 colleagues publicly for the excellent program they put
8 together here this morning starting over at BART bright
9 and early and continuing through the morning with a
10 number of excellent presentations. As it happens and as
11 we hoped, the presentations were really quite on point
12 to the issues that we are concerned about in this
13 committee. It fits in very well.

14 What I'd like to do to help the court reporter,
15 as every golden word we say from now on is going to be
16 captured for posterity, I'd like to just go around the
17 table, have everybody introduce themselves. If she
18 can't quite read names at this end, she'll have an idea
19 who everybody else is. Then we'll ask the people not at
20 the table, that is, people who are not officially
21 members of the committee to introduce themselves as
22 well, again for the court reporter's purpose.

23 I'll start. I'm Joe Sussman from MIT. I'm the
24 chairman of the ITS program advisory committee.

25 MR. AUGUSTINE: John Augustine, managing

1 director of ITS Joint Program Office.

2 MR. BERTINI: I'm Robert Bertini, acting
3 director of ITS Joint Program Office.

4 MR. BELCHER: Scott Belcher, president, ITS
5 America.

6 MS. CHASE: Robin Chase, CEO of Meadow Networks
7 and Entrecare.

8 MS. GIULIANO: Gen Giuliano, University of
9 Southern California.

10 MR. ALBERT: Steve Albert, Western
11 Transportation Institute, Montana State University.

12 MR. SUSSMAN: I'm glad that the LY industry of
13 the United States finally allowed you to join us.

14 MR. ALBERT: Zero visibility.

15 MR. SUSSMAN: That's not much.

16 MR. SWEATMAN: Peter Sweatman, University of
17 Michigan Transportation Research Institute.

18 MR. VONDALE: Jim Vondale, Ford Motor Company.

19 MR. TOTH: Gary Toth, Project for Public
20 Spaces.

21 MR. KISSINGER: Peter Kissinger, AAA Foundation
22 for Traffic Safety.

23 MR. DROBOT: Adam Drobot, 2M Company.

24 MR. CALABRESE: Joe Calabrese with RCA.

25 MS. FLEMER: Ann Flemer, Metropolitan

1 Transportation Commission.

2 MR. SUSSMAN: Around the side to my right --
3 oh, I'm sorry. Beg your pardon. That's embarrassing.

4 MR. DENARO: Bob Denaro, vice chairman and vice
5 president of NAVTEQ.

6 MR. SUSSMAN: Valerie, over to you.

7 MS. BRIGGS: Valerie Briggs, ITS Joint Program
8 Office.

9 MR. VALDES: Vince Valdes, associate
10 administrator for research, FTA.

11 MR. CRONIN: Brian Cronin, ITS Joint Program
12 Office.

13 MR. PANGILINAN: Chris Pangilinan, Research &
14 Innovative Technology Administration.

15 MR. SUSSMAN: And Portland State University and
16 MIT.

17 MR. PANGILINAN: Thank you.

18 MR. VELEZ: Charlie Velez, Citizant.

19 MR. GLASSCOCK: Stephen Glasscock, ITS/JPO.

20 MR. SUSSMAN: Thank you.

21 Speaking privileges, of course, at this meeting
22 are officially in some sense limited to the advisory
23 committee. I will recognize people not on the advisory
24 committee as we can move them into the discussion, and I
25 expect, given we have a relatively small number of folks

1 and not anybody from the general public who I can spot,
2 I recognize everybody around the table, and that should
3 present no problem. So just wave your hand in my
4 direction and I'll try to recognize you as quickly as I
5 can.

6 The purpose of this meeting is simply to
7 continue our deliberations and continue to work toward
8 providing advice to the Joint Program Office in USDOT.
9 I always emphasize that in our writings, our committee
10 reports, what have you, that decision advisory
11 committee, that is, we have no executive authority, we
12 can't tell anybody to do anything, but we hope that
13 given the stature of the people around this table and
14 given the rather divergent views that people have that
15 if we are able to reach consensus in our discussion,
16 that will carry some weight with our friends at JPO.

17 And in a sense more of the point in a more
18 official capacity, the JPO is charged with annually
19 reporting to the Congress what they have done relative
20 to any pieces of advice we may have provided. So at
21 least in principle, all the senators and congressmen are
22 waiting with bated breath to see how JPO has responded
23 to our advice.

24 Just to briefly review the agenda, I'll turn it
25 over to Rob Bertini in a moment to make some welcoming

1 remarks. We'll then spend some time discussing the
2 process with which this committee will work to seek
3 consensus, to seek common ground in terms of the
4 recommendations that we can make.

5 Then after a break, there will be a session
6 with JPO presentations on the platform approach and
7 IntelliDrive. And my vice chair, Bob Denaro will
8 moderate that part of the discussion, and that will take
9 us through the end of the day.

10 We have a social dinner, no host, which means
11 everybody pays for themselves. And it's not, in a
12 sense, an official part of the meeting but rather a
13 casual chance to get together and relax together.

14 We begin tomorrow in the morning bright and
15 early at 8:00 at this same venue. I will moderate a
16 discussion on multimodalism, the two topics that we
17 identified of particular interest, more platforms in
18 multimodalism.

19 And then after the morning break, Bob will
20 moderate the discussion on kind of closing the loop on
21 modes of operation for this committee. We'll get ideas
22 on the table today, and we'll hopefully pull it all
23 together tomorrow. And then there will be a summary and
24 wrapup, and we plan to adjourn at about noontime.
25 That's certainly my intent for people who have airplanes

1 they have to catch and the like.

2 So are there any questions on the agenda and
3 how we will move through this next day from now?

4 If not, I'd like to turn it over Rob Bertini to
5 welcome us as well. I was told that perhaps Peter Appel
6 will be on.

7 MR. APPEL: I'm on the line.

8 MR. BERTINI: I was going to surprise you.

9 Peter, if you'd like to start, you're more than
10 welcome.

11 MR. SUSSMAN: Let me point out that Peter
12 himself is a graduate of MIT, as long as we're keeping
13 track.

14 MR. BERTINI: I've heard of MIT. I visited you
15 there a few times, but that's all I can say about MIT.

16 Thank you, Joe.

17 I did want to thank Joe Calabrese and the BART
18 staff for hosting us this morning. That was an
19 extremely interesting visit, and we really appreciate
20 that.

21 Ann, thanks to you and your staff and to Darton
22 from MTA for a very good discussion on the good panel
23 earlier. And we certainly appreciate all of you,
24 members of the committee, for the commitment of your
25 time and energy to our program, and we do take your

1 input and your involvement in our program very
2 seriously, and we really do value your insights and the
3 constituents that in a sense you represent.

4 So we appreciate this -- I guess this is the
5 second in-person meeting of this advisory committee and
6 the first one that I know of outside of D.C., and so I
7 think it has been interesting to gain the different
8 sorts of travel logistics necessary to get here. I

9 think it was very useful, and personally I appreciate
10 that. We're really looking forward to the discussions
11 over the next few days.

12 I think in your memo to us back in -- earlier
13 this year, you laid out roughly six topic areas which we
14 think are right on, and we are excited about the chance
15 to engage with you on those topics. We're very pleased
16 to be starting with the two today, open platforms and
17 multimodalism. So we're very much looking forward to
18 those discussions.

19 I wanted to thank the RITA staff, Stephen and
20 Charlie and Brian and John and Valerie and the others
21 who helped us prepare for this meeting. Chris also.
22 Also the fact that Vince Valdes, the associate
23 administrator for RD at FTA is here is, we hope, an
24 expression of our commitment to cutting across the modes
25 of the USDOT, and we do take very seriously your

1 concerns about the multimodal aspects of our program.

2 We want to convey as strongly as we can that we
3 do actively every day work on that issue, and we do have
4 very strong modal partnerships. We have some new ones
5 that are ramping up.

6 We're excited to report just recently the
7 Federal Railroad Administration and the Maritime
8 Administration are really at the table now. And we
9 continue our strong partnerships with the National
10 Highway Traffic Safety Administration, the Federal Motor
11 Carrier Safety Administration, FTA and FHWA as well.
12 Vince, as one example, he devotes a lot of his time to
13 the ITS program as a member of the strategic planning
14 group. That is a multimodal group. It would be
15 fascinating for you, probably, to have a window into how
16 that group operates. It is a very active, dynamic group
17 who really takes their responsibilities seriously for
18 monitoring and helping manage the direction of the ITS
19 program on a day-to-day basis within the DOT.

20 And I think you would be pleased at some of the
21 healthy discussions that do go on in that forum as well
22 as with the Management Council, who is the layer above
23 him, who help us manage the program. So we appreciate
24 Vince and his counterparts across the other modes of
25 USDOT in providing that critical management and guidance

1 on a day-to-day basis.

2 I was just going to briefly mention something
3 that I think has been significant for us for our program
4 over the last few months, maybe six months or so. We've
5 embarked on some new international partnerships, and we
6 may not have had the chance to brief you on those. I
7 thought I would just mention that RITA has signed
8 agreements with the European Union, with Canada and with
9 Japan in the last -- about the last year, we really
10 started to move those relationships forward, more in the
11 last six months.

12 One of the things that we have been focusing on
13 is something that came up several times this morning,
14 and that's that of harmonizing standards across
15 continents. So that's something that I think -- a very
16 small number of us were at the ITS world conference in
17 Busan. I gave several presentations in several forums,
18 and others of our staff did as well, in the context of
19 the trilateral work we've been doing with Europe and
20 Japan and the focus on the harmonization of standards.

21 We think it's important for us to be leading in
22 that area. We ourselves do not participate and
23 determine what those standards are, but we certainly
24 support and in some cases we fund participation of
25 others in the standard bodies. But I want to make you

1 all aware that we've been making great progress.

2 I think the reaction internationally has been
3 very positive, particularly that these agreements have
4 been signed and that clearly trusts our commitment to
5 that. And I know Peter may have something to add about
6 his and our and the DOT commitments to coordinating with
7 our global partners and making sure that there's a
8 common platform for data for all aspects of ITS.

9 I know that some of you may be aware that Peter
10 and his wife, Barbara, recently became parents. So the
11 reason Peter is not here in person, I know, is because
12 he's staying close to home with their new daughter, and
13 I'm with that. We at RITA are all very excited about
14 the new addition to the Appel family.

15 And so I think I'll turn it over to you, Peter.

16 MR. APPEL: Thank you very much. And, Joe,
17 thank you. I wish I could be with you. I'm kind of
18 staying pretty close to home, because our daughter is
19 just a couple of weeks old.

20 As I think about it now, the last significant
21 trip I took before the latest one is in California a few
22 weeks ago. I told them there it was going to be my last
23 trip, and I was grounding myself to be close to home for
24 the impending arrival.

25 I said, you know, a milestone like the birth of

1 a daughter is a good opportunity to sort of look forward
2 to the future and imagine when she's old enough to drive
3 what things are going to be like in the transportation
4 system, and it made me realize if I look 18 years in the
5 future and say how are things going to be different in
6 the transportation setting, I could learn a lot from
7 looking 18 years in the past.

8 18 years ago, I joined the FAA to work for the
9 FAA. When I joined the FAA, there was one very clear
10 thing about aviation, which was aviation was the safest
11 mode of transportation by far, and we did everything we
12 could at the FAA to make it safer. But we were still
13 way ahead of the rest of the modes of transportation in
14 terms of the transportation environment.

15 Then you go 18 years later from the day I
16 joined the FAA, which is today, and aviation is
17 dramatically safer today than it was 18 years ago. 18
18 years ago, commercial airline crashes were rare but
19 still every few months. Nowadays, we don't, and the
20 statistics bear it out, that it made an incredibly safe
21 system, incredibly safer in the last couple of decades.

22 When I think about surface transportation and I
23 think about ITS, I think that a lot of that really is a
24 lesson to be learned, that we can look at the dramatic
25 improvements we have in surface transportation safety

1 just in the last few years. A lot of academics say we
2 can't even figure out how it's gotten so much safer and
3 so many fewer fatalities in the last few years, but it
4 has.

5 And yet 34,000 people were killed on the
6 highways last year, and we think that's not really where
7 we want to be. We want to be with dramatically safer
8 roadways. And to that end, we say, okay, we have a much
9 safer system than we did a couple of decades ago, but
10 just like with the aviation example, we can still get
11 better and will get better.

12 And all of you that know me know that I know
13 that ITS can do a lot of wonderful things in mobility
14 and environmental sustainability and just general
15 convenience of transportation. But safety is a common
16 thread that really is something we can make dramatic
17 impact with ITS and the leadership of this DOT, which
18 has priorities in all of those areas, in safety,
19 mobility/livability, environmental sustainability.

20 What Rob and I are doing with the leadership of
21 DOT is underscoring every opportunity we can how ITS
22 contributes to DOT goals in each of these areas. And so
23 I think the work you're doing on this committee, we're
24 trying to get as much visibility with Secretary LaHood
25 and his immediate leadership team as we can.

1 At the very end, the very last meeting we had
2 in December, what they call the Secretary cabinet, which
3 is about the ten senior people who report to the
4 Secretary, we got a round table. The day before the
5 meeting, we were told by the Chief of Staff, be prepared
6 to talk about your one most significant accomplishment
7 of your agency for the year. In the next paragraph,
8 they said we know there are going to be multiple
9 significant accomplishments. We've got to take just
10 one.

11 I thought this through for a while, and
12 ultimately I went to the meeting and I talked about ITS
13 and I talked about specifically within ITS the
14 vehicle-to-vehicle and vehicle infrastructure
15 communication and the events in that area in terms of
16 international in terms of developing standards and
17 really setting the stage for the future. It is
18 extremely important what we collectively, all of you in
19 that room, all of us here at RITA and Federal Motor
20 Carrier Safety Administration, FTA, FHWA, et cetera, are
21 all working together to do at ITS.

22 I'm very excited about what we can do in this
23 field. I'm extremely grateful for the sacrifices you
24 are all making to be part of this committee. It is not
25 an easy thing in this day and age to drop what you're

1 doing and go to the West Coast for a couple of days to
2 talk about this topic. So I want to say thank you for
3 what you're doing. We can really use your help.

4 Particularly we could use your help in defining
5 how to get from the research to practical deployment of
6 all these great ideas that we have around the table. We
7 have to do it. We have to show the benefits from what
8 we're doing. Every single one of us that watched that
9 last election in November know there is going to be
10 worse scrutiny than ever about every dime the federal
11 government or government at any level spends on any kind
12 of program, transportation included.

13 I'm extremely optimistic that ITS will be a
14 winner in that discussion because ITS is an area, where
15 with good leveraging and technology, there's a huge
16 amount of bang for the buck in the federal and state and
17 local level. What we have to do is show it, show it can
18 be done and show the results.

19 And, again, I thank you all for your
20 contribution to that. I wish you well in the
21 next-day-and-a-half meeting.

22 MR. SUSSMAN: Thank you. And congratulations
23 on your new family addition. I think that's wonderful.
24 The best to you and your wife.

25 MR. APPEL: Thank you.

1 MR. SUSSMAN: Are there any questions for
2 Administrator Appel? I'm presuming that -- are you
3 going to stay with us for a while? I wasn't quite sure
4 what your plan was.

5 MR. APPEL: I'll stay for about 20 minutes, and
6 the answer is I can take questions.

7 MR. SUSSMAN: If anybody has any particular
8 questions for Peter, this is probably a good time to
9 raise them.

10 Jim?

11 MR. VONDALE: I don't have a question, but I
12 just wanted to commend Peter for his leadership in the
13 area of harmonization. I think it is extraordinarily
14 important that we move forward in global harmonization,
15 and the work that's been done so far has been very
16 important and will lay the ground work for the future.

17 MR. SUSSMAN: Thank you, Jim.

18 Any other comments? If not, let me launch into
19 the session that in your agenda is a discussion of our
20 report, the report that we submitted last summer to JPO
21 and launch into some discussion of the way in which the
22 committee operates and try to get some ideas on the
23 table based on where we have been in the past.

24 We met last time in April in Washington. I
25 would characterize that meeting as largely exploratory

1 in nature. We all learned a lot about ITS and what was
2 going on within the JPO context. What we recognized, it
3 seemed to me, based on what we had heard was it was
4 important to think of ITS in a broader context than
5 simply the technology of ITS.

6 We needed to think about it in the context of
7 the transportation system more broadly, and even
8 further, we had to think about the transportation system
9 more broadly in the context of global issues, global
10 economy, global climate change and the like.

11 So that notion of thinking broadly, thinking in
12 a systemic way was certainly on the table. We recognize
13 that we should be dealing with multiple goals for ITS,
14 and that came up this morning, the idea that the goals
15 of ITS are not only economic development and mobility,
16 are not only environment and various issues relating to
17 energy. It's not only about safety. All these are
18 important, but ITS is in a sense about all of these, and
19 we need to think about how we advance on all those
20 dimensions.

21 We recognize that we are operating in a very
22 technology-rich world. Technology is so trite, of
23 course, to say technology is changing so very, very
24 fast. It's also so true to say that technology is
25 changing very, very fast, and where we get on and off

1 the wagon, so to speak, is something we have to worry
2 about.

3 We recognize and commented on the rather slow
4 pace of deployment as we saw deployment of research
5 initiatives going more slowly than we had hoped. And we
6 recognize the importance of a leadership role for JPO
7 within the ITS framework.

8 We emphasized we weren't talking about a
9 domination role. We were talking about a leadership
10 role among leaders within the ITS framework.

11 So those were some overarching ideas.

12 Specifically we said what this meeting was
13 about was identifying the agenda for the future of the
14 committee, and we had five basic points that we talked
15 about as agenda-building ideas.

16 We talked about multimodalism and we talked
17 about open platforms, and those are the two ideas that
18 we're focusing on at this particular meeting. We're
19 also at future meetings expected to focus on
20 communication. We talked about DSRC and other modes of
21 communication. We talked about technology and whether
22 ITS was in catch-up mode and how it could if it was. We
23 talked about transformation.

24 And by "transformation," in a sense we meant an
25 institutional transformation, the idea that the federal

1 government, state government and local government were
2 in many ways redefining their role. And the
3 relationship between the public and private sector were
4 also in a redefinitional phase.

5 This came up directly this morning as we were
6 talking about data collection and data dissemination and
7 how this all takes place and the relative roles on the
8 public and private side.

9 So those were areas that we identified as quite
10 important for us.

11 It might be worth thinking a little bit about
12 the notion of a vision of transportation and ITS for the
13 future as we embark upon our discussion. Some of you
14 may have read that interview with me that was in ITS
15 International, and I talked in that interview about how
16 perhaps the public is getting a little tired of us
17 sitting around and grumbling about woe is us in the
18 field of transportation. Everybody is beating us up.
19 We're getting no respect, as they say.

20 I conjectured that one of the reasons for that
21 problem was that the profession really wasn't advancing
22 the idea of a vision for the future of transportation
23 comparable, let's say, in the mid-'50s to President
24 Eisenhower and the interstate system, which turned out
25 to be the lynchpin of transportation policy for many

1 years.

2 So I would suggest we don't really have a
3 vision for transportation and not for ITS either. I'm
4 not sure I'm here to tell you what I think the vision
5 is, because there are many different opinions, but I
6 can, I think, talk about some of the things that are
7 inherent in that vision and then try to relate it to
8 what we're talking about in this committee.

9 So I would suggest the vision of the future is
10 a sustainable system. Several people commented upon
11 that, Peter in particular this morning, the idea of
12 economic development, environmental protection, equity,
13 all of these as being part of the vision, that the
14 vision is based on advanced technology and always has
15 been in the field of transportation. What we mean by
16 advanced has changed, but it's always been a
17 technology-driven business.

18 The vision has to include interconnections with
19 a broader world. We have to explicitly worry about
20 energy, the environment, social equity and the like.
21 That interconnectedness is important. That vision
22 should be multimodal, that is, we can't depend on public
23 transportation or highways or air transportation. We
24 have to depend upon them all in tandem.

25 And given the uncertainty of the future, now as

1 always, we need to have a vision that's flexible. That
2 is, we don't know, as Peter was describing, as he was
3 talking about 18 years ago and now here we are today, we
4 don't know what the future holds, and creating a vision
5 that can, in fact, move as the environment changes, I
6 think, is very important.

7 Finally, we're talking about a vision in which
8 institutional change, in my view, has to be on the
9 agenda. We can't continue in the kind of relatively
10 confrontational way we operate now despite some progress
11 that's been made across the modes. There's still an
12 extraordinary strength of modal perspectives within DOT
13 and within the industry itself, and coming up with ways
14 of overcoming that is very important.

15 So DOT has goals for the transportation system
16 of the future. They've already been alluded to, and
17 they're directly related to some of the things we're
18 talking about. There are five overarching goals -- many
19 of you may know -- safety, livable communities, state of
20 good repair, economic development and environmental
21 sustainability. All of those are on our agenda as well.

22 So I suggest that what we're doing in this
23 committee and what ITS is doing is very nicely aligned
24 with the broader thinking DOT has and the visionary
25 thinking that I think we need to develop.

1 As I saw the first meeting, we did a lot of
2 good things. We started to understand many of these
3 issues. We, I think, had common ground on many of them,
4 but there's a lot we didn't do. Most specifically we
5 did not reach consensus in very specific ways about how
6 ITS should develop.

7 We reached consensus on these overarching
8 principles, if you will, and people signed off on the
9 report that went to DOT, but people did so grumbling to
10 a certain extent and understandably grumbling about the
11 fact that, well, yeah, there is good stuff, but it's not
12 particularly specific about how we need to move forward.
13 It wasn't, I would hasten to say, for a lack of trying
14 that we were unable to be more specific. It was because
15 there are many different strongly held points of view
16 around the table about the best way forward. So we
17 tried all sorts of things. We distributed drafts. We
18 got hammered on both sides of every issue. We asked you
19 for white papers and talked about why don't we write an
20 overarching memo and distribute the white papers as
21 individual statements of members around the committee.
22 And people provided the white papers, but then when they
23 discovered we actually planned to give them to DOT, many
24 people demurred from that. Ultimately we ended up
25 writing the memo that I think was useful in a

1 stage-setting way, but it wasn't especially specific in
2 terms of advice that we provided.

3 So I think what we ought to be thinking about
4 is how we go about providing advice that's, in fact,
5 more salient, more specific, that JPO can pick up or
6 not, as they see fit. We are only advisory. But at
7 least the advice should be specific on issues of what
8 they should do, what they should not do within the ITS
9 program, how to go about doing it, in a sense ways of
10 moving forward in this field. How do we create those
11 sets of specific advice.

12 And I tried to do some thinking in kind of a
13 normative sense to say if we were to come up with advice
14 or come up with critiques of what JPO was doing, what
15 kinds of, if you will, metrics or points of principle
16 might we have to decide whether what they were doing or
17 not doing was right or wrong. I came up with several,
18 and these are just really conversation starters.
19 They're not pronouncements, if you will.

20 The first was: Is JPO in this particular act
21 providing leadership? Are they part of the leadership
22 of the ITS world in taking particular actions that they
23 take?

24 A second one: Does JPO properly provide a
25 platform for the rest of the world, at least the rest of

1 the United States, to build on effectively? And when I
2 use the word "platform" there, I meant a technical
3 platform in the sense that, I think, Robin means it, but
4 I also meant an organizational platform, that is, is
5 there a structure that's being presented
6 organizationally that JPO is moving forward.

7 A third is: Is what they're proposing part of
8 what I call an integrating vision for ITS? Is there
9 some overarching vision, and is a particular proposal
10 consistent or consonant with that overarching vision?

11 I guess the way I ended up thinking about it
12 was, as a basketball fan, there's always these debates
13 about who's the greatest player of all time, and there
14 are many points of view. In Boston, we tend to lean to
15 Larry Bird, not to shortchange the excellence of Michael
16 Jordan, of course, as my Chicago friend will quickly
17 point out.

18 But the argument we always made about Larry
19 Bird is he made everyone around him better, that he was
20 a great player, but the other ballplayers on the court
21 all became better as a result of the way he played. And
22 I think one might think about, does JPO pass that test?
23 Does JPO make everyone else better, the private sector,
24 state and local government better?

25 Those are just some examples of ideas that one

1 could plausibly use to think about whether our friends
2 at JPO are, in fact, doing the right thing.

3 The notion of sustainability always is part of
4 that. Are they providing a sustainable transportation
5 system? Are they creating effective relationships
6 between the modes, the states, the private sector and so
7 on? So those are criteria.

8 And the final thing I wanted to mention, and
9 then we'll open it for some discussion, is to think
10 about an organizing framework for the committee's
11 operation. My sense has always been the value of the
12 committee's recommendations has been they represent
13 consensus across a very broad set of informed
14 stakeholders, that is, the people here; that is, the
15 power of the recommendations is in a sense they do
16 represent presumably some hard-won consensus of this
17 committee, but in practice, we've been having difficulty
18 actually reaching those points of consensus. Now,
19 perhaps we'll do better, but perhaps not.

20 And we've been doing some thinking about some
21 other ways of trying to work toward that consensus that
22 might be more efficient with respect to people's time
23 and the like.

24 And one of the ideas that we've discussed is
25 the notion of having subcommittees of this committee

1 that would look at particular areas in which the people
2 therein were, if you will, experts, and that those
3 subcommittees would ultimately report back to this
4 committee and hopefully present some consensus of at
5 least that group that could then in principle be adopted
6 by what we want to do.

7 We've had some discussions, Valerie Briggs and
8 her colleagues, about what those subcommittees might be.

9 There are various models that one could imagine, and on
10 the one hand, it's potentially a way of converging. On
11 the other hand, plausibly it's a way of diverging. And
12 it's really hard to know before the fact what will occur
13 in any particular circumstance.

14 Another idea that's been advanced, and I'll
15 turn in a moment to Rob Bertini to talk about it, is the
16 idea of using the committee as a way of getting some
17 very high-level interest both in the private sector and
18 the public sector at ITS by involving senior officials.
19 And Rob has raised the question of the chief technology
20 officer at the U.S. working with this committee, and
21 that's another way of perhaps getting some profile for
22 ITS that might create additional value that we might
23 provide above and beyond simply providing consensus
24 advice. So that's the end of my introductory remarks.

25 Perhaps, let me turn briefly to Rob Bertini and

1 have him fill in some of the comments on subcommittees
2 and the particular one he had in mind.

3 MR. BERTINI: Thanks, Joe.

4 The rules that govern your operations as a
5 committee do allow for the establishment of
6 subcommittees, and the basic requirement is that one
7 member of the parent committee must be a member of the
8 subcommittee, but other experts or other people can be
9 invited to join a subcommittee in a little more flexible
10 manner than the process that you went through to become
11 committee members.

12 The idea has been brought forward some time
13 back, I will say, by the chief technology officer,
14 Aneesh Chopra, who's a real champion for transportation,
15 for intelligent transportation and for spurring
16 innovation by the private sector, for the most part
17 outside of D.C.

18 And he's interested and anxious to find ways to
19 bring industry leaders to the table at the White House
20 at a meeting that he might convene to really ask the
21 questions and discuss the question of how do we
22 accelerate deployment or how do we bring to bear the
23 benefits of this technology, to bring to bear the
24 transportation sector with safety benefits, how can we
25 leapfrog, perhaps.

1 And he uses an example in the health care arena
2 where a subcommittee to a federal advisory committee was
3 formed. He co-chaired the subcommittee. It was in
4 operation for a very short amount of time.

5 But the whole question was how to open up
6 pathways for more seamless integration of health care
7 data. So there was some giant group forming, some way
8 to harmonize all the different health care databases out
9 there with hundreds and hundreds of fields.

10 So this subcommittee was brought together and
11 said, "How do we focus on the 20 or the 11, or whatever
12 the number was, most important fields that will allow
13 health care data systems to talk to one another. They
14 met. They had a few meetings. They hammered it out.
15 They agreed. They got industries to move forward and
16 then saving, you know, millions and millions of dollars
17 and enabling much more interoperability for health care
18 today.

19 So his idea of how can we do this in
20 transportation, what is the question, you know, that we
21 need answered about what are the barriers to unleashing
22 a lot of the power or harnessing the power of open
23 platforms for transportation data to improve safety and
24 to improve mobility and sustainability.

25 Can we think about this model is the question

1 that Aneesh had raised to us. And then we wanted to
2 bring to you, more generally, the notion of
3 subcommittees perhaps tackling different topics that may
4 be of interest to you as a focus for our program. But
5 specifically in this one case, you know, bringing the
6 industry leaders together and meeting in some sort of
7 White House conference trying to hammer out some sort of
8 agreement. Maybe we'd talk a lot about standards, so
9 that's another area I think could use some emphasis. So
10 that's the basic crux.

11 John has also been involved in some of these
12 conversations, and John and Steve and Valerie have done
13 the research to confirm that we can, you know. Subject
14 to your interest, we can get some subcommittees up and
15 running relatively easily compared to other things. We
16 would be pleased and excited if that was something
17 you're interested in. We would work to support the
18 creation of subcommittees and the idea that the
19 subcommittees would have defined time frames and defined
20 deliverables or tasks. I think we would want to make
21 sure that there was a framework for supporting your work
22 and the work of subcommittee members as well.

23 We talked the other day about some possible
24 subcommittee areas that have come to our mind, and we
25 would be glad to talk further about that.

1 MR. SUSSMAN: John, do you or Valerie want to
2 chime in with any comments on either of the two models?

3 MR. AUGUSTINE: I think Rob did an excellent
4 job of recapping the generous offer that Aneesh made to
5 us to really be involved, host the meetings at the White
6 House or participate in any way he could. Basically use
7 the White House bully pulpit to bring together the
8 national decision-makers. We felt that was something --
9 we have a roomful of experts here, but it would be great
10 to bring it up to the White House level. That's one
11 thing.

12 The other thing is because there's such a
13 diverse interest group on this panel, we thought that
14 subcommittees would be a good way to sort of focus and
15 channel some of the discrete interest areas and have
16 those areas be really fleshed out and brought back to
17 the full committee. It's fairly hard to reach any kind
18 of technical agreement with so many different
19 perspectives, and we only have a day and a half to cover
20 a lot of ground.

21 The subcommittees could go off and get fairly
22 detailed and come up with some good recommendations and
23 good ideas to bring back to the committee. If we did
24 that in a couple of different subcommittee areas, we
25 would be able to make a lot of good progress.

1 MR. SUSSMAN: Valerie, anything further?

2 MS. BRIGGS: No.

3 MR. SUSSMAN: It sounds as though there are --
4 that two potential models have been advanced. One I
5 might call the profile model. That is, it would be a
6 decidedly different modality from what we're doing.
7 That is, we would bring in some heavy hitters, like CTO.
8 We could presumably attract some heavy hitters from the
9 public and private side, as you say, the bully pulpit of
10 the White House, which always captures people's
11 attention, to simply elevate the dialogue another level
12 up.

13 So that's not along the trajectory particularly
14 of the committee but, nonetheless, could be
15 characterized as a very good deed, that the committee
16 could provide a basis for moving along.

17 The other model is what I might loosely call
18 the substantive subcommittees. That is, we would have
19 groups of three or four or five members who would meet
20 either face to face or virtually to hash out questions
21 that we sometimes have difficulty getting our arms
22 around this table.

23 Those subcommittees could not report, if you
24 will, in any official way to the JPO until the
25 committee, that is, the whole committee, has vetted and

1 blessed the findings, and then it could become, if you
2 will, official advice that you would be -- if you didn't
3 act on them, at least you'd have to explain to some
4 congressman why you didn't.

5 So those are two ways of advancing.

6 You've heard a couple of operating modes for
7 trying to advance with more specificity than we have in
8 the past, and you heard me expound on what I thought the
9 criteria for success for judging any particular
10 initiative might be, the leadership role of JPO and so
11 on and so on.

12 So let me now stop and open the floor to any
13 questions, comments, suggestions that the people might
14 have.

15 Steve?

16 MR. ALBERT: One of the things that I think
17 really struck me with either the last meeting or the
18 meeting notes or your interview, Joe, was the idea of
19 the U.S. falling behind ten years compared to other
20 parts of the world. And you had mentioned that one of
21 the ideas was looking at JPO in ways to move forward. I
22 wonder if the committee should really formally adopt it.

23 We're not just looking for ways to move
24 forward; we're really looking at ways of how do we
25 accelerate. I'll give you an example. If you

1 historically look back at how ITS was being deployed in
2 the United States with safety as a key perspective,
3 organizationally it was pretty ad hoc. First it was the
4 traffic engineers doing it. Then it was the systems
5 folks. Then it was blah, blah, blah, blah, blah. But
6 no one could ever tackle it organizationally.

7 In most of the presentations that we've seen in
8 the advanced reading, the focus is predominantly on
9 IntelliDrive applications.

10 I'm wondering if one of the things that we
11 should be tackling as a group or a subcommittee is the
12 idea of how do you organizationally, institutionally get
13 IntelliDrive deployed so that it can be accelerated and
14 that there are organizational models and the staffing
15 skills you need and other things like that, because,
16 otherwise, it's just going to be a collateral duty of
17 someone else. I'm wondering if you could create a
18 framework.

19 If we're going to go this route and if we want
20 to accelerate deployment, these are the things we need
21 to have in place to effectively do this, whether it's
22 public or private general.

23 MR. SUSSMAN: Back to Gen.

24 MS. GIULIANO: Steve, you generate great ideas
25 here.

1 As a new member, of course, I don't know what
2 has happened in the past, but I would like to know what
3 is it that we want to tell Congress. I think we kind of
4 have to decide that before we decide whether
5 subcommittees are a good idea, bad idea, whatever. I
6 thought that at the last meeting, that was sort of --
7 you know, these topics that we brought up were really
8 topics that we felt we could weigh in on and say
9 something to Congress about.

10 There are a couple of sort of broad things that
11 keep coming up over and over again, which is the how do
12 we get the deployment theme, and then the other one that
13 I hear all the time is standards of interoperability.
14 Those come up all the time.

15 As a social scientist, I have to ask do we know
16 why deployment is so difficult. I have some ideas. I
17 don't know, you know, how many people have actually done
18 research on the topic. But if we want to get to
19 deployment, for example, we have to understand why we
20 didn't or why we haven't. The same is true for the
21 question of interoperability.

22 We really have to understand why is this such a
23 big problem. You know, what generated the circumstances
24 to make this such a big problem? Until we understand
25 it, I don't know how we just sort of say, "Okay. Let's

1 get to operability or let's get to standards."

2 So maybe part of this is exploring issues that
3 we've identified as being sort of the highest priorities
4 and starting from that point as a way of, okay, in a
5 year's time, six months' time, this is what we want to
6 be able to say to Congress.

7 MR. SUSSMAN: Thank you.

8 Gary?

9 MR. TOTH: This is not working. I'll just
10 speak louder.

11 I also have my theories on why some of the
12 deployment is not working having worked inside the
13 system for a number of years. It occurs to me that
14 there is a third -- Joe, you talked about two possible
15 ways of moving ahead in the next six months to a year.
16 The third I want to toss out there is could we hire
17 somebody to do some research.

18 You talk about doing research. Could some of
19 the research be to hire somebody -- Genevieve, is that
20 how you say your name? -- or some university that
21 understands this whole science of the institutions to do
22 some research. It's not going to be a big task, I
23 think, having a subcommittee to get around and we'll
24 find new people with eight different opinions based on
25 their own experience of how to do it. I think this

1 deserves more scientific analysis.

2 MS. CHASE: The purpose is to study why it
3 doesn't get implemented. What is the purpose?

4 MR. TOTH: What are the barriers to deployment?

5 MS. CHASE: To deployment of IntelliDrive?

6 MR. TOTH: Of ITS, in general.

7 You know, it occurred to me, and we had a
8 conversation during lunch with Rob and Valerie, that
9 it's interesting to me that most of the innovation and
10 advances in this arena in the country is being done at
11 the cities, at the state DOTs, with the exception
12 perhaps of the NTC and a few others. It's not really
13 happening in the MPOs. I have my theories about why
14 that is, but I'm not going to bore you with them right
15 now. Something is going on there.

16 And so I think it would be very useful for us
17 to have some sort of scientific research about what's
18 really going on there so that we can take those lessons
19 learned and beat it back into Congress, because one of
20 my theories is it has a lot to do with the whole
21 performance reward system and funding is allocated down
22 through every USDOT and the whole political system and
23 yada yada yada. It would be -- I think it's going to be
24 very informative and very useful if we really want to
25 get it deployed. That's what I meant.

1 MR. SUSSMAN: Rob?

2 MR. DENARO: I'll just speak louder.

3 I thought we had a discussion at the last
4 meeting also about one of the barriers being at the
5 federal level. They potentially have responsibility for
6 setting strategy, but deployment and implementation is
7 at the local level. I think that's one of the gaffs
8 that we talked about, and I think it was the subject of
9 this institutional discussion potentially of how it
10 happens. Maybe that football handoff at that juncture
11 is not working as well as it should. Wasn't that one of
12 the major barriers we talked about the last time?

13 MR. SUSSMAN: Peter?

14 MR. KISSINGER: I kind of like the idea of
15 relating to the White House, and I also like the idea of
16 focusing on why is it that we can't seem to achieve a
17 public-private collaboration that many of us would like
18 to see. Processwise, just a suggestion to kind of keep
19 the dialogue going here is recognizing the limitations
20 of advisory committees and people's time.

21 One hybrid might be to orchestrate with this
22 group a high-level meeting with the White House, which
23 is primarily fact-finding, and bringing in the kind of
24 people from the private sector that perhaps we couldn't
25 attract to this committee who would come in for a half a

1 day or a day and really open up and lay out what they
2 see as barriers or even suggestions, maybe spending a
3 half a day on barriers and half a day on things that
4 could be done.

5 I think it would be very timely in the context
6 of we're getting ready to authorize the highway bill, in
7 terms of things we'd like to see included in that bill.

8 And then perhaps that could be synthesized and brought
9 back to this committee for us to comment on and provide,
10 if you will, kind of recommendations to synthesize all
11 of that and make recommendations back to JPO as to what
12 we as a committee think would be the highest priority
13 input.

14 MR. SUSSMAN: Jim?

15 MR. VONDALE: I agree. I think both of the
16 suggestions that were made are good suggestions. I
17 agree elevating the focus of the ITS effort would be
18 really good. We have a new CTO at Ford. He's very
19 familiar with what we're doing here. I think it would
20 be a great idea to have the CTO and us pull together key
21 chief technical officers of major companies and other
22 high-level people to get them even more focused on this
23 issue. So I think that's a terrific idea.

24 In terms of subcommittees, I think I'd like to
25 do both, actually. I think subcommittees are a good

1 idea because there are some issues. I'd love to see a
2 global harmonization subcommittee, for example, that
3 would help focus and support what JPO is doing on global
4 harmonization to make sure that we look at ITS globally
5 rather than city by city or region or state or whatever.

6 There are so many things that would be enhanced
7 if we could look at this as a global effort utilizing
8 the strength of the various efforts that are going on
9 globally. I think that ultimately it will speed up
10 deployment.

11 Anyway, I think those are both great ideas, and
12 I strongly support them.

13 MR. SUSSMAN: Peter?

14 MR. SWEATMAN: I was struck by what Steve said
15 straight up. When I read our report, the thing that
16 stuck out to me was we could be ten years behind issues.
17 And I don't think as an advisory committee we can kind
18 of sit back and be kind of comfortable about that at
19 all. So we have to figure out is that really true.

20 The IntelliDrive program, where does that sit
21 in terms of that conversation? It also brings to mind,
22 to me, the group that Gen and I have just joined through
23 TRV, looking at transportation research in different
24 countries, and part of that is the status that it has in
25 different countries.

1 One of the things we've observed is that -- and
2 the reason for the study, the TRV study, was that we
3 felt that the status in this country is lower than it is
4 in, say, Europe or Korea or Japan. And part of that
5 argument was that it was kind of assumed in other
6 countries that transportation and ITS was really
7 critical for the economy, but it's not necessarily the
8 case here.

9 So I think we need to go up a level, so I
10 really like the idea of bringing it to the White House
11 and the national CTOs.

12 And I guess, like Jim, I also was attracted to
13 the idea of fleshing out more the different views we
14 have on this committee because -- we can do that through
15 subcommittees. I think we should be doing that, too. I
16 think really this report has given us kind of a wake-up
17 call.

18 We need to elevate this debate as high as we
19 possibly can. I fully support the idea of having this
20 high-level forum, bringing the CTOs from many of these
21 big companies together, but also to flesh out among
22 ourselves. We've got a wealth of views here. I think
23 that I, for one, am very intrigued to learn more about
24 the other views around the table. So I think the
25 subcommittees would really help with that.

1 MR. SUSSMAN: Scott?

2 MR. BELCHER: At one level, I agree that
3 elevating is always a good thing. The more attention we
4 can bring to transportation and the way that technology
5 can be a tool to help address it is good. I would
6 applaud that.

7 I think one of the issues that the committee
8 has got to address, and maybe one way around it is the
9 subcommittees, is the kind of fundamental issue of what
10 business committees opine on and what is the role of the
11 JPO.

12 It strikes me that the genesis of much of the
13 debate that went on around the paper and the
14 disagreement that continues to go on is the difference
15 between the JPO's fundamental mission as a research
16 organization that is focused on developing the next
17 generation of technology, and in that light
18 IntelliDrive, and then the multitude of committee
19 members who have an operational responsibility. So
20 IntelliDrive in the future of research, it's very
21 important to us all.

22 What you heard in the committee debate is that
23 divide. For an Ann Flemer or for a Joe, I mean, they're
24 worried about what's happening today. They're
25 deployment agencies. I think it is that tension between

1 deployment and research which is really at the very base
2 of why we struggle to come up with really valuable
3 advice for the Joint Program Office. I think this
4 committee has got to grapple with that kind of
5 fundamental issue before we can really give meaningful
6 advice.

7 Because if we give meaningful advice on
8 something that the Joint Program Office doesn't have the
9 ability to influence, then we're not really
10 accomplishing a meaningful role.

11 MR. SUSSMAN: At least not with respect to that
12 agency, that's quite right.

13 MS. CHASE: I want to build a little bit on
14 what Scott is saying. I feel like there are mixed
15 goals, and perhaps just one goal, but I think there's a
16 mixed discussion of goals.

17 And when I think about this meeting with
18 Aneesh, bringing it up to different day, are we trying
19 to forward what JPO wants, or should I say what are
20 JPO -- are JPO's goals safety in transportation the
21 goals -- how can technology be used in transportation as
22 the goal -- how can the U.S. government assist adoption
23 of technology in transportation? Are there goals --
24 environmental goals, or is it innovation in
25 transportation and adoption of technology throughout the

1 innovation sector?

2 I feel like there's too many different things
3 going on here. And if I were to go Aneesh, who I chat
4 with often, I feel like there's different things going
5 on. Is it innovation in transportation, is it
6 technology, or is it part safety applications and
7 IntelliDrive? What is it that I'd like to see
8 brought -- not even me -- what is it that the government
9 wants to see, the government versus JPO? There's too
10 many different levels. What is the goal.

11 MR. DROBOT: Joseph, let me sort of step back a
12 little bit, because I think what you laid in front of us
13 is sort of two choices. I think sort of with a limited
14 amount of time of reflecting on that, I have sort of a
15 gut reaction. The gut reaction says the following: To
16 have a successful meeting at the White House where you
17 bring in some people that are fairly high level, use the
18 bully pulpit, you cannot do that successfully unless the
19 groundwork is laid first.

20 That means that the substantive piece of work
21 which I believe -- I think the committee ought to
22 concentrate on and leads to an event of the kind we
23 talked about is probably the right way to proceed.

24 The second statement I'll make is that we
25 really do have a broad range of issues to grapple with,

1 because transportation in all its glory deals with a lot
2 of issues that range all the way from operational to
3 advanced research essentially. Unless somebody comes
4 through and puts together a reasonable vision to talk
5 about in the first place, some degree of
6 consensus-building and a mechanism to actually do that,
7 it is hard to create national programs.

8 Let me be very specific. When I take a look at
9 IntelliDrive and its predecessor, what I did not see are
10 the precursors that are necessary to create an actual
11 program. That means education on the Hill, involvement
12 in OMB, because in the end, somebody has to decide to
13 spend money on this. Whether it's from the private
14 sector or the public sector, there has to be the
15 consensus to spend money and the set of conditions under
16 which money can, in fact, be spent.

17 The private sector is not going to do it unless
18 there's some consensus and a clear set of rules where
19 they can get a return on their investment. You might
20 get little bits and pieces, but you're not going to get
21 anything substantive.

22 And I would say in doing that, you really have
23 to have a very broad view of what it means to do that
24 substantive first piece. It's not just technology. It
25 is the sociology of the organization. It's the economic

1 basis for things. And it's really coming out with a
2 nice, clear message why this is worthwhile doing as part
3 of the nation's vision.

4 When I look at harmonization, all the
5 international things, it's an economic reality in
6 today's world. You don't build cars just for the U.S.
7 market. You do it for the world market. If I were to
8 look at our multimodal transportation today, where the
9 stock comes from, it's built all over the world
10 essentially. If you don't partake in that in some broad
11 sense, I think you're doomed to have this sort of
12 vulcanization that doesn't serve us as well.

13 So to conclude all of this, I'd say I think it
14 is worthwhile putting together a committee structure,
15 taking a larger view of some issue, and I'm not going to
16 say right now which one I think we should all discuss,
17 and then the way you approach that issue is you divide
18 and conquer. You break it up into a couple of
19 subcommittees. Each of them does their substantive
20 work, and that gets rolled up to the whole committee,
21 which then goes and has an event at the White House,
22 that the ground work is built for that.

23 That's something I think you can accomplish in
24 one year or something like that. You've got to give it
25 some time, and you have to figure out how to resource

1 it. My suggestion is not by funding from the JPO.
2 Really figuring out how do you use existing
3 organizations, whether it's AASHTO, whether it's ITS,
4 trade associations. I think you really need to do it
5 from the ground up. And that's what gets you
6 participation on a broad scale.

7 MR. SUSSMAN: Bob?

8 MR. DENARO: I just had a quick comment. Just
9 so that everyone understands, we're talking about
10 subcommittees, and I'm really happy to hear that there
11 seems to be a lot of enthusiasm about that possibility.
12 One of the things we're talking about is where we would
13 have one or a few members of this committee on a
14 subcommittee, but we would also invite any number of
15 outsiders, other experts, national experts and so forth,
16 so it really expands the reach of this organization,
17 this committee, and gets us the expertise we need to
18 really accomplish something more specific. So just so
19 we're on the same page.

20 MR. SUSSMAN: I'll recognize Steve in just a
21 moment, but I have a comment or a question that I think
22 is a first cousin at least to what Robin was saying,
23 because I'm trying to get my arms around this
24 ten-years-behind issue. And I could imagine that being
25 interpreted in a variety of ways. One could interpret

1 ten years behind as we ought to really have much more
2 deployment than we have of the current ITS technologies.
3 Look at Europe. Look at Japan. We are ten years behind
4 in the sense of deployment.

5 Another way in which ten years behind can be
6 interpreted is we are ten years technologically behind,
7 that is, what we are talking about deploying, as we
8 discuss the research, as we will later today and
9 tomorrow morning, is really hopelessly behind,
10 technologically speaking. We're ten years behind where
11 we ought to be, not in comparison necessarily with
12 what's going on in Germany or Japan but with what's
13 going in the world of technology.

14 I'd appreciate anyone's comments about which of
15 the two or both we are talking about.

16 MR. DROBOT: Read the Rising Storm, National
17 Academy of Science. That's pretty clear on the issue.
18 We are falling behind technologically.

19 MR. SUSSMAN: Educationally as well is what
20 they're talking about.

21 Ann and then Steve.

22 MS. FLEMER: Go ahead.

23 MR. ALBERT: Just a comment. A wonderful
24 presentation has been put together coming up on
25 IntelliDrive and the JPO program. I'm not sure whether

1 that effort has been put in context with some of the
2 other work that's been going on at AASHTO with the
3 IntelliDrive deployment study. I know I'm part of that
4 team.

5 I'm wondering if that study might have helped
6 in setting context here of what they currently found out
7 in terms of what would full deployment look like, what
8 are the institutional issues, what are the legal issues,
9 what are the barrier issues. That might have been
10 helpful before even we saw the presentation that's about
11 to be done. Is any of the DOT staff familiar with the
12 AASHTO work.

13 MS. BRIGGS: We are funding that study, so
14 we'll integrate it. We are following it. I manage it.

15 MR. ALBERT: Do you think some of the
16 questions, then, that have been brought up here are
17 answered in that study?

18 MS. BRIGGS: They are certainly questions that
19 are part of that study, but that's still ongoing, so we
20 don't have the results of that study at this point.

21 MR. SUSSMAN: What about a response to what I
22 put on the table? I'm trying to get my arms around in
23 what sense we are ten years behind.

24 Go ahead, Ann.

25 MS. FLEMER: Well, from the perspective of a

1 metropolitan area and planning organization, we
2 participated quite a bit on what are we also ten years
3 behind on in terms of transportation, let alone
4 technology. We're nowhere close to greenhouse gas for
5 emission reduction target setting in this country.

6 We're woefully behind financially and what it takes to
7 fix the system. We're woefully behind on the mobility
8 of our freight network.

9 There's a lot of policy positions that others,
10 other associations, what have you, have put forward to
11 try and craft what the national imperative is in
12 transportation. To that, then, I would bring in the
13 overlay of what's the technological -- technology
14 contribution to solving those problems.

15 So one step for this group could be could we
16 sign on to a basic statement of agreement on what are
17 the transportation issues. There are various national
18 commissions that have been put in place. I don't even
19 want to think about it.

20 Gen, you've noted that -- I mean, that group
21 spent two and a half years with research to pull
22 together. Then they made a very clear statement of the
23 top ten problems that we have. Could we start from that
24 and then get into the nitty-gritty of where is the
25 technology? It's multimodal. It has to do with

1 IntelliDrive or automobiles. It has to do with
2 communication technologies, financing of transportation
3 using different electronic payment systems. All of that
4 might give us a little bit of grounding on what we're
5 talking about here, because I don't think it's
6 technology just generally.

7 It's really a commitment -- it's through the
8 White House and others, which we haven't really seen
9 yet -- of how they align with what that national
10 commission came up with, as an example.

11 That could be the basis for the White House
12 first meeting, which would be to say, "Look. Here's
13 what's missing in this country. What is the technology
14 we really ought to be thinking about and why aren't they
15 happening." And we bring in the folks who are the
16 technology experts, not the policy people any longer,
17 because we've got that nailed down. Personally I
18 believe we have. I don't think we need another debate
19 about that.

20 So what we do need to say as we become much
21 more visible about it is why the heck are we taking so
22 long with the technology to solve some of these
23 problems.

24 MR. SUSSMAN: I think Peter was next and then
25 Bob.

1 MR. KISSINGER: As a new member, and having
2 missed the last committee meeting, one of the things
3 that kind of scares me about everything I've heard is it
4 seems like we keep expanding the scope of this
5 committee. And from my experience, unless we start
6 focusing on a smaller group of topics, I think we're
7 going to continue to have this dialogue and not get
8 anywhere. I think prioritizing what it is we want to
9 focus on or what we are supposed to be focusing on is
10 long overdue, I think.

11 MR. SUSSMAN: Bob, please.

12 MR. DENARO: I was going to say something else,
13 but I do want to respond to what you just said.

14 I agree a hundred percent. I think we're
15 really struggling with the potential scope. And if you
16 think about at the end of this year if we have to report
17 on what our accomplishments were and those
18 accomplishments were that we helped facilitate a White
19 House meeting that focused on this particular area and
20 achieved the following results, that would be quite a
21 good accomplishment. So really more focus in
22 accomplishing something meaningful, I very much support.
23 I think it's a great suggestion, and I think we ought to
24 discuss that a little bit more about maybe focusing down
25 the number of things.

1 I do want to respond to Joe's question about
2 where the ten year behind -- and by the way, I also
3 pushed back on that. Through personal experience, and
4 at least comparing Europe and a little bit Japan, I
5 would say in transportation my view is that we're two to
6 three years behind. That's a big deal. That's my view.

7 And I would push back also I don't think it's
8 technology at all. I think when you look at the various
9 technologies, and I can't go through a laundry list, I
10 don't see any technology gaps whatsoever. I do see a
11 very strong deployment gap for sure, probably a systems
12 engineering gap, and maybe that's technology.

13 So bringing in the component of technology
14 together with a lot of pieces and making something
15 happen with that that results in something, we're
16 probably slow at that. I don't know if that's
17 deployment or technology, but we're not executing.
18 Anyway, we can debate that, but that's my opinion on the
19 technology piece.

20 MR. SUSSMAN: By the way, Adam is the original
21 generator of the 10 or 20 years behind at the meeting
22 back in April. The anonymous committee member I quoted
23 was, in fact, Adam.

24 MR. DROBOT: In other words, it is very easy if
25 you aren't deploying things to be way behind.

1 Let me start with the following. If you look
2 at us as a nation, you look at our infrastructure, it
3 is, in fact, crumbling and underinvested. You can deal
4 with that issue one of two ways. One is you tax more,
5 put more money into it one way or the other. We all pay
6 for it.

7 If you look at the number, that
8 underinvestment, I understand it's something on the
9 order of one to two trillion dollars. Take the roads
10 and make sure they don't have potholes like they do in
11 the state of New Jersey. The hardest part of this is if
12 you start looking at electronic things, that's the stuff
13 that's getting cheaper and cheaper and cheaper every
14 time.

15 The technology, how you use dishes, how you use
16 robotics, how you automate that, that price is
17 continuing to go up. That also begs for technology. A
18 little different, maybe not quite as exciting as
19 building the next piece of software. That's the real
20 stuff. Condition-based maintenance. How do you
21 actually use that information? And, again, it's not
22 sexy at times, but, boy, that has real emphasis. And
23 when you look at the amount of impact on the country,
24 that's tremendous.

25 So my feeling is there's some degree, and I was

1 hoping within the group -- there's some degree of
2 discussion. What are the real issues that we're facing?
3 When we build infrastructure -- my background is
4 telecommunications. Here's what I see. Most of the
5 telecommunication infrastructure follows roadways. It's
6 done totally separately. What we do is we build the
7 roadway, then we tear it up and put the cable in. It's
8 not just, you know, filled in. It doesn't function just
9 as well as it did before.

10 MS. CHASE: In the broadband plan -- and that's
11 the broadband plan. That was part of the plan.

12 MR. DROBOT: I'm on the committee. We aren't
13 doing it, and I don't see DOT stepping up and saying,
14 "Hey, if the nation goes down this way, how do we
15 anticipate and make sure this is in the standards and
16 the stuff is actually done?"

17 MR. BERTINI: I have a phone meeting with
18 someone from STP tomorrow about a broadband plan. I've
19 participated in Aneesh Chopra's broadband workshop that
20 was the model for the ITS concept we've been discussing.
21 RITA is very, very involved in the broadband initiative
22 through our government and international and public
23 affairs.

24 MR. DROBOT: I'll tell you when you do that, in
25 fact, part of your deployment makes it obvious to you

1 here is where the infrastructure is passing you by in
2 the communication infrastructure; here is where I have
3 to focus, actually latch onto it so I don't have to
4 build yet another separate national system just for this
5 single purpose. One of the things I'm seeing in other
6 countries is much, much better participation and
7 preplanning.

8 MR. SUSSMAN: I like to think of myself as a
9 systems guy thinking in broad terms. Certainly your
10 identification of crumbling infrastructure is exactly
11 right and on point. Perhaps that is beyond where we can
12 go. I don't think this committee can convene a group to
13 worry about the questions of crumbling highways,
14 crumbling water works systems and so on.

15 MR. DROBOT: How does technology contribute?

16 MS. CHASE: I want to answer that. I want a
17 second opinion. I think there's a whole bunch of policy
18 work. And these things we're talking about, we all know
19 these things.

20 The question is what is the role of RITA in
21 technology, in solving infrastructure financing, the
22 pace of innovation in transportation and supporting the
23 Department of Transportation's policy goals. I was just
24 whispering to Genevieve that I feel a little bit of our
25 struggle is that there is a lack of policy clarity in

1 the United States, and that's why we're sitting ten
2 years behind, because we can't decide what it is. Do we
3 care about sustainability or not? Is it all about cars
4 or not? There's no consensus, so there's been no White
5 House or any kind of consensus.

6 So coming back to not discussing issues that we
7 all know, what is it that we can do to support the
8 Department of Transportation's technology strategy --
9 investment strategy? Is that not the point of this
10 meeting? And I feel if we focus on that, I think we can
11 make some advancement. I have issues with how to spend
12 their money, and I'm happy to talk about that, but
13 that's not where we are right now.

14 So what are your goals, and how can we as a
15 committee comment on whether they are the right goals
16 and whether they're achieving those goals? I feel
17 that's where we should be focusing, not broad level.

18 Your point about harmonization of data, that
19 could be a good one. Is that one of the things that
20 RITA should be addressing or not?

21 MR. SUSSMAN: Is that a technology strategy
22 question?

23 MS. CHASE: Yes. But I disagree with the
24 giant, overwhelming focus on car safety application as
25 implemented through IntelliDrive. That's another

1 discussion.

2 What are the policy goals and what it takes to
3 be advanced? Since we're talking in circles, how can we
4 get out of the quagmire of talking in circles?

5 To this committee having subcommittees, I liked
6 your point about will that promote convergence or
7 diversion. And I think if we all go talk in our little
8 corners, we'll all come up with great agreement and
9 we'll come back to the table and we'll still have lack
10 of agreement. And because of this lack of consensus
11 over what's the purpose of this committee, in general,
12 do they have right purpose?

13 MR. SUSSMAN: Jim?

14 MR. VONDALE: When I agreed to join this
15 committee, I guess I came in here with the understanding
16 that it is government's role to make tough policy
17 decisions. In the business I'm in, I look to the
18 government in many instances to make a lot of those
19 tough calls. It's our job to try to implement it.

20 When I came in to this committee, I understood
21 the government had made choices about the focus they
22 wanted to have. Obviously, you're going to hear they
23 have a pretty broad menu, but I think we all understand
24 that the focus of IntelliDrive is safety. It's my view
25 that it is the province of the government to make that

1 decision.

2 If we're going to be constructive and helpful
3 here, I think it's much better if we accept that and
4 then work to try to help the government and the
5 Department of Transportation and RITA be successful in
6 the priorities that they have chosen. If we spend a lot
7 of time trying to change those priorities, I think we're
8 not going to be successful and we're not going to be
9 helpful.

10 So it's my advice that we accept the role of
11 government in making decisions about what the priorities
12 should be and as a committee work to try to find the
13 best way to ensure that they're successful.

14 The second point I'd like to make is I
15 understand the comment about being ten years behind, but
16 when I look at the core efforts of the IntelliDrive
17 program, I don't think there's anyone who would dispute
18 the fact that we're global leaders in the core elements
19 of the IntelliDrive program, so I'm confused by the
20 ten-year issue. I would argue just the opposite.

21 MS. FLEMER: Maybe just to pick up on that,
22 when we have national policies to improve safety in
23 transportation, I would agree that there's been a
24 decision that the safety technology strategy is
25 IntelliDrive. I would agree that that would be

1 something we move from. How do we make that happen?

2 I think what we're struggling with is that
3 safety isn't the only national objective or policy, and
4 maybe it's a decision of this group, or not -- I don't
5 know how far we feel we can go -- to go beyond what the
6 current menu of priorities for JPO is because it's
7 focused on safety and to add to it at a national level
8 reporting to Congress, that we think the same focus and
9 effort should be also added to these three other
10 policies, whatever they are.

11 Fill in the gap. Is it metro mobility? Is it
12 greenhouse gas emission reduction? Pick something to
13 add to that portfolio if that's our realm. And I would
14 agree, too, I'm a little unclear myself as to whether
15 that is what we should be proposing back through JPO to
16 Congress, or we say, "Look, there are other entities who
17 should be promoting this directly to Congress because
18 it's not part of the JPO agenda right now.

19 MR. SUSSMAN: These are all excellent comments.
20 I'm wary of the time because I want to be sure we have a
21 chance to discuss some of the substance that JPO has put
22 together for us on IntelliDrive, in particular. Jim's
23 comment, I think, is at the nub of our thinking about in
24 what direction we want to go. I'm not so sure I agree.
25 I suspect that there are some who do and some who don't,

1 but it's something to come back to, I think, in our
2 session tomorrow.

3 That is, when I talked about criteria for
4 success during my opening remarks, I argued that
5 sustainability should be a criteria for success as one
6 judges what JPO is doing. And sustainability, by
7 anyone's definition, includes safety but goes beyond
8 safety.

9 So the question would be do we want to say,
10 "Well, they chose safety. They chose IntelliDrive.
11 Within that universe, they're doing fine"? Or do we see
12 our charge being more broad to say, "Yes. They chose
13 safety, but they should have chose more broadly."
14 That's, I think, at the nub of what we have to decide as
15 a group. But I appreciate you raising it.

16 Gen, I'll take your last comment. You'll get
17 the last word.

18 MS. GIULIANO: And, actually, I was raising my
19 hand because I feel like this is not the time to stop
20 this talk, because until we make these decisions, we are
21 going to be going around in circles. I thought last
22 time around, we had actually listened to -- we had
23 gone -- read through all those reports, we discussed
24 them all. This is last time, right?

25 And that's how we came up with these areas that

1 we felt we were concerned about, more so than was
2 reflected in all the reports of all the presentations
3 that we had. I kind of thought we already made that
4 decision. So if we didn't, then I think we ought to
5 make it now.

6 And then I'm going to go back to if we're going
7 to say anything to Congress in any reasonable time
8 frame, we actually have to decide what we want to focus
9 on. The longer we wait to make that choice, the less
10 time we have. You know, if we want to stop talking
11 about this now, then when are we going to start talking
12 about it again, because I think we have to do it at this
13 meeting.

14 MR. SUSSMAN: There's no question that that's
15 correct. I'm your servant on this question. The way we
16 had structured the meeting was to have the discussion at
17 the outset, then move into the two particular areas we
18 had characterized as critical to survive, multimodalism
19 and platforms. Then we have an hour or so remaining at
20 the end of the meeting tomorrow morning to kind of --
21 with everyone having a chance to mull over Jim's
22 position and other positions to try to close on it.

23 But if this group would prefer to continue this
24 discussion, I have no -- I have no problem with it. I
25 do want to get to the other two topics at some point. I

1 guess it's just a question of how we want to conduct
2 ourselves. Do we feel as though we've gone as far as we
3 can now and we ought to cogitate upon it, or do we feel
4 right at the point of breakthrough and why stop now.
5 I'm open for views on that.

6 MR. DROBOT: Maybe let me do one thing which I
7 felt there was some consensus on. Whenever I feel that,
8 it's worthwhile focusing on. I think Jim put out the
9 whole issue of standards and international agreements on
10 how you get everything to be similar around the globe.
11 I have a feeling we have pretty much a consensus on
12 that. I think it's worthwhile holding a committee for
13 that and going forward with it no matter what else we
14 do. I think it certainly has value. It's something
15 worthwhile doing no matter what else you do. That one
16 is worth it.

17 I'd say the issue of whether you do breadth or
18 depth, and I'm going to come back to this
19 ten-years-behind issue, you know, where that comment
20 came from is the fact that the chosen technology was
21 directional range communication systems, which, as far
22 as radio systems go, is ten years behind
23 technologically, very specifically. It had nothing to
24 do with what we do as a nation.

25 I think we're facing the following issue in the

1 use of communication technology. We lived in a realm
2 where every function had its own network because that is
3 all you could afford at one point in time. It wasn't a
4 very good network. That's why we got an allocation of
5 spectrum, build a network just for this single purpose.

6 In today's world, you have broadband, things
7 like LT coming into being. I have a feeling we're
8 better off migrating, making the hard choices to go to
9 something that is useful for all purposes essentially.
10 It's a lot easier to integrate and it's a lot easier to
11 sustain the research end than keep on the technology
12 end, essentially.

13 I know that Robin is shaking her head yes. I
14 think that's the context in which that ten years behind
15 was, you know, essentially said, because electronic
16 goods that go into cars, telecommunication systems,
17 things of that sort, really move at a fairly fast pace.
18 Isolating the technology for single characters making a
19 legacy, I think it would be a tragedy for the country.
20 I think that's a substantive issue.

21 MS. CHASE: Can I respond to Adam?

22 MR. SUSSMAN: Yes.

23 MS. CHASE: Adam and I are in complete
24 agreement with this. I feel like I've spent the last
25 two and a half years, three years, making this point to

1 the Department of Transportation. It feels to me that
2 we need to do this in another fashion and in committee
3 and do something great and move forward.

4 Those of us sitting around this table don't
5 seem to make that argument well right now, so we need to
6 up the ante or give it up. I think there's a lot of
7 other interesting things that can be accomplished here.
8 I am in agreement with you.

9 I had a conversation with Bob Denaro on the
10 phone the other day, and I'm willing to move to the
11 further position, which is to say, let's take hard
12 safety off the table, it's great, love it. What other
13 things are interesting? How can we make those other
14 interesting things happen, and how can we make it happen
15 as quickly as possible? I just want to take that
16 discussion out, and there's a lot of other interesting
17 things can happen.

18 MR. DROBOT: Absolutely.

19 MR. SUSSMAN: Other comments?

20 MR. BELCHER: Just as a process suggestion, I'm
21 empathetic or sympathetic or in agreement with where you
22 are, Genevieve. I'm kind of where we are in the
23 dialogue. But I do think there's an awful lot floating
24 around here, and I'm not sure that if we took a break
25 and came back, we'd get a whole lot further. We would

1 just kind of continue with the discussion.

2 My recommendation, Joe, from a process
3 standpoint is that we do take a break, we come back with
4 the agenda that's here. You and Bob and whoever you
5 want to recruit can try to make sense of this to see if
6 tomorrow we can come back with a proposal that people
7 can really react to. It may take some side
8 conversations. Maybe we start with that tomorrow.

9 I do agree that if we haven't figured out what
10 it is we're going to be spending our time on, the great
11 work that RITA has done in operation may not be really
12 all that useful.

13 MR. SUSSMAN: I tend to be sympathetic with
14 that perspective. My sense is that at least in a group
15 we've gone for the moment as far as we can go. There
16 are a lot of ideas percolating around. I'm trying to
17 get my arms around them. I suspect others are doing the
18 same. Unless someone throws a tantrum, I think what I'd
19 like to do is call for a break and we'll resume at 3:00
20 with a discussion of IntelliDrive, and we'll take some
21 of this off-line and try to come with a more specific
22 proposal.

23 We stand adjourned.

24 (Recess taken.)

25 MR. DENARO: This session -- let me look at the

1 agenda here. The session is formerly called the
2 platform approach and IntelliDrive discussion.

3 If you remember our discussion at the last
4 meeting, we talked about -- the question is the -- is
5 really JPO taking a platform approach to IntelliDrive,
6 and we suggested that perhaps they weren't enough
7 considering where platforms have evolved to now. Maybe
8 four or five years ago when we first looked at something
9 like IntelliDrive, under its former name, of course, was
10 it really -- do we really understand platform approach,
11 and maybe things have changed and maybe that's where we
12 need to move to.

13 So what I'd like to do, and I guess we were
14 scheduled to go -- well, I guess we'll still go to 5:00
15 regardless of when we're starting, so we've got a little
16 under two hours. What we'll do in terms of process for
17 the meeting is we have asked the JPO to put together a
18 presentation on addressing the question of how are we
19 addressing the platform approach. We'll take a look at
20 that. It's all in your read-aheads, so hopefully I'll
21 ask JPO if we can move pretty quickly through it, if you
22 don't mind, and get to the questions and discussions as
23 quickly as possible.

24 My goal for this session -- my goals for this
25 session would be the following: First of all, I would

1 suggest we need to start after the presentation to --
2 let's have a little bit of a discussion, make sure we're
3 all on the same page of what we mean by a platform
4 approach. So maybe when we say that there are 15
5 different opinions in the room of just what that means.
6 Let's have a little bit of understanding and
7 level-setting on that.

8 Secondly, understand IntelliDrive's approach to
9 open platform currently, and that will be accomplished
10 by the presentation. Let's discuss and debate the gaps,
11 modifications that we see. And my preference would be
12 rather than talking about generic in terms of -- let's
13 focus on examples as much as possible. I think that
14 brings it to life for most of us. If we can think of
15 examples of -- okay. If we have a platform approach,
16 what would be different in consumers carrying mobile
17 phones, or whatever, and get to that point.

18 And then the last goal, maybe being the most
19 challenging considering the previous conversations, as
20 much as possible I'd like to see us converge on
21 recommendations and where we see -- perhaps where some
22 of those gaps are, what would be the recommending that
23 we want to then vet as we put together our
24 recommendation memo.

25 And by the way, in light of the previous

1 discussion about us talking about our entire mission and
2 everything else, I think regardless of where we end up,
3 this is going to be one of the key points anyway. I
4 don't think this is wasted effort, by any means. I
5 think this will be a key component of what we focus on
6 regardless of how broadly we address the ITS issues and
7 JPO's mission.

8 With that, let me invite -- I don't know who is
9 presenting.

10 MR. CRONIN: I will.

11 MR. DENARO: Brian, if you will lead us
12 through, and then we'll get into our discussion.

13 MR. CRONIN: Thank you. Glad to be here to
14 kind of lead through this discussion. We kind of had a
15 multiplatform approach to put this together. Valerie
16 put it together, I'm presenting it, Rob did some
17 last-minute editing and John oversaw the process with
18 Rob as well. So we have -- these are the questions that
19 you put forth to us. You asked me to go quick, so I'm
20 going to assume you know what questions you asked us.

21 We went to the New Webster's Wikipedia and
22 pulled out a definition to help ground everybody in kind
23 of what we've been looking at and kind of ties in what
24 we've been talking about related to what is an open
25 platform and talks about the open standards and

1 application interfaces that are available for folks to
2 use.

3 So when you look at the program, we do have a
4 couple key things about using open data and if we
5 develop things moving towards open source, especially
6 related to mobility programs. And so when we talk about
7 open data, we're talking about free and available
8 without restriction and reusable to folks. We look at
9 open source in a collaborative way to develop
10 applications, methods, algorithms that could enable
11 rapid implementation.

12 And so when you look at mobility in the dynamic
13 mobility applications program, we do have a significant
14 part of our research agenda that's not safety, that we
15 look at how we provide multisource, multimodal
16 information to the public to use in driving
17 applications, whether that's the traveler information
18 applications that may very well be private sector led or
19 the applications that a city running a signal system
20 would have to do, which are going to require federal
21 investment to move as well as local public-sector
22 investment to move forward for implementation.

23 So when we talk about connected vehicle and
24 wireless connectivity -- yes?

25 MR. DROBOT: If you could go back to the

1 previous page, I have a couple of questions.

2 If you look at most open source material, it
3 comes with a license. Those licenses over time are
4 proving actually enforceable in court, so they're
5 something real. In developing this, have you actually
6 thought through what this specific licensing scheme
7 would be under which everything is developed?

8 MR. CRONIN: We're actively looking at that
9 right now. We have an open source development sort of
10 assessment right now, which we're trying to make the
11 decision if we're actually going to go into this and
12 what licenses we're going to use. NASA, one of their
13 licenses is where we're headed at the moment, but we
14 have actually a group coming in next week to talk on
15 that.

16 MR. DROBOT: The next thing is NASA is, in
17 fact, not free.

18 MR. CRONIN: Nothing is free.

19 MR. DROBOT: You used the word "free," and so
20 the question is, you know, when you go down this path,
21 there's sort of a balance between having stuff that's
22 free and having enough economic incentive that people,
23 in fact, do contribute to this body of work.

24 MR. CRONIN: I think we're balancing it. I
25 think what we're sort of saying is for the research

1 program and what we're investing in in the next few
2 years, we're going to do this unless we do our
3 assessment and that says no way. When we get to
4 implementation, a full implementation of a nationwide or
5 whatever system, as it evolves is an open source to be
6 determined.

7 MR. DROBOT: Let me ask the next question on
8 this. When you go and create an open source platform,
9 usually that platform has a set of requirements that go
10 along with it. Have you thought through what the
11 process is for actually collecting those requirements to
12 make sure we have a platform fit for purpose?

13 MR. CRONIN: That's what we're doing right now.
14 Actually, we've just launched that process, so we're
15 embedded on doing a CONOPS and then getting into the
16 requirements for what an open source portal would need
17 to do and be. We're launching into that process. We
18 haven't implemented it yet.

19 MR. DROBOT: I'm going to hold the rest of it
20 for later.

21 MR. CRONIN: And so, you know, we're looking at
22 the connected vehicle concept. Obviously, it's all
23 vehicle types. We're looking at drivers. We're looking
24 at wireless devices of multiple types, infrastructure
25 and how do what we improve safety and mobility. When we

1 talk about these platforms and we talk about open data
2 or information, and this group started to hit on it,
3 there's really two parallel things.

4 We are doing safety, but that's not all we're
5 doing. But the safety platform is DSRC. I think that
6 would be a simple, clear way to talk about what we're
7 doing on safety. The mobility platform is going to
8 leverage DSRC but does not necessarily have to be based
9 on that. And so we're looking through that and looking
10 at what communication technologies do we use.

11 If you step back, it's based on having
12 multisource open data that people can then use to manage
13 the system in a more dynamic and aggressive way. So
14 that's kind of what we're doing.

15 I have a couple of slides, really one on
16 safety, and then it's really more about the mobility
17 side of the program as we go through the rest of the
18 presentation. DSRC is inherently open. It's true that
19 we picked it because of the communication speed,
20 security, reliability, stability, spectrum.

21 MR. SUSSMAN: I just want to make sure I
22 understand the previous slide before we go on to this
23 one. Explain technology agnostic building on DSRC.
24 What does that phrase mean?

25 MR. CRONIN: That's a great question.

1 We firmly believe that we need DSRC for safety.
2 As that infrastructure in the vehicles and through the
3 road network and transportation network really moves
4 out, we can leverage that or there may be mobility
5 applications that just inherently use DSRC. But as you
6 get to this next slide about communication speed,
7 security, some of the other things, it's not as clear --
8 LTE, 3G, Wi-Fi, other wireless communications could be
9 used because we don't for the mobility need the
10 communication speed that you need for safety.

11 We may be able to live with less reliability.
12 I say may because it's not for all cases. We may be
13 able to live with some of the items that you don't need
14 in the safety element.

15 And so what we have said is we are very well
16 open to looking at how do we bring in other
17 communications. Could we accelerate some of the
18 mobility things if you're using other communications?
19 And so one of our big things as we looked at the
20 system -- one of the things we're doing in parallel
21 right now is a concept of operations for wireless
22 connectivity. How do you do that if you use multiple
23 communication technologies?

24 Yes?

25 MR. KISSINGER: Can you tell us approximately

1 how much money or program you allocated to those two
2 tracks? That seems to be at the heart of what we're
3 having trouble reaching agreement on in this room. I'm
4 presuming --

5 MR. CRONIN: John, you have that for tomorrow's
6 presentation.

7 MR. AUGUSTINE: So I think to try and answer
8 that quickly, for the safety piece here that you see on
9 this picture, chart 9 for tomorrow's presentation shows
10 the V2V and V2I as 18.5 percent, and then you see in
11 yellow the real-time data capture and management,
12 dynamic mobility, where there are environmental at 14.5
13 percent.

14 So in this case, there is more resources going
15 towards the safety applications, but if you look at the
16 others, mobility and environmental and open data, it's
17 fairly comparable, it's 18.5 to 14.5 percent. This is
18 based on the FY 10 budget, the actual budget that we
19 spent.

20 So for a program that's in the
21 hundred-million-dollar range, you can essentially --
22 it's 18.5 and 14.5. That's not a hundred percent
23 accurate because we have some carryover. We get not
24 precisely a hundred million dollars, but it's in the 18
25 and 14 million for these two.

1 MS. CHASE: I do love that Peter -- that Joe
2 picked that up, technology agnostic building on DSRC.
3 DSRC is a profound technology choice, which you know.

4 And I can feel the case you're building, and, yes, DSRC
5 is an open standard and anyone can do anything with it.

6 And I guess my point is if we look over the
7 last ten years in which you have been working on DSRC,
8 no one has built on it because it's an incredibly
9 expensive spec to build on. It's not useful in any
10 other realm because it's dedicated to transportation
11 and, therefore, you've chosen something that no one else
12 wants to use. I'll stop.

13 MR. DROBOT: Robin, let me maybe go back one
14 step. I took a look through the presentation, so
15 forgive me for doing that, but the first thing is when I
16 take a look at a platform in this realm, a platform has
17 many components and it's not software only.

18 So if I look at an example, a recent platform
19 would be Android, which comes out of Google. There is a
20 set of hardware that it goes along with. There's a
21 complete supply chain. Everything is predicated on the
22 ability to produce things in the tens of hundreds of
23 millions essentially. This is what makes it affordable.

24 It turns out you have others who have agreed to
25 do drivers for it. So when you look at platform in its

1 totality, if you think you're just building software,
2 it's a mistaken notion. Just system level, I think
3 that's a very mistaken notion.

4 And so what I want to know is are we talking
5 really about a platform, or are we talking about a
6 little subset of software applications, which I can
7 switch out the communication system with something else
8 by just changing one of the drivers. I can't tell what
9 you're doing actually, because how you end up
10 interacting with a vehicle with the hardware on it, the
11 reliability of those, there's a whole chain of
12 additional things that have to be part of the
13 considerations.

14 I'd also say while it's good to have the
15 products for many, many reasons, the good military
16 setting, we have clear missions, et cetera, et cetera,
17 very nice and easy to do. Generally used for the
18 general public for something of this sort, I'm not sure
19 you can build enough CONOPS to actually capture what
20 we're requiring in the first place. That's been the
21 experience of people who do things of this sort.

22 MS. CHASE: Adam, that last sentence you have,
23 I think you should break it out and be less -- I think
24 people didn't understand what that meant, and I think
25 that's an interesting point.

1 MR. DROBOT: Let me try to do this from
2 examples of something that is a platform and let me
3 start with something that is not. If you look at the
4 world that designs electronic chips for almost anything,
5 there are probably three companies that, in fact,
6 account for 80 to 90 percent of all designs in the
7 world, Cadence, Window Graphics and Synposys.

8 Each of them built a platform which subsumed
9 all the common knowledge you need to design something
10 like a chip. And so what you find is that the level of
11 investment in that is so great and the use is so general
12 that the rest of the world goes and builds everything on
13 top of those. That's a platform, and it's a very
14 complex piece of software.

15 It probably took billions of bucks to develop
16 for each of the players, but it is so complete and so
17 compelling that everybody ends up using that platform
18 because their life becomes easier once this platform
19 contains all of that complexity.

20 If you're going to build a platform here, you
21 have to really subsume the complexity of the system so
22 something like an application really becomes easy to do.
23 It is very, very hard to do that, I would say. It would
24 be something that really does not have enough activity
25 going into it in the first place. That's where DSRC is

1 as a technology.

2 Therefore, it's actually hard for us to feel
3 across all the requirements we eventually have for the
4 system. And you can't anticipate all of this ahead of
5 time. That's why having a life platform with
6 reasonable-enough activity in it is so essential.

7 MR. CRONIN: I would articulate that DSRC,
8 while there are some elements of it that maybe are new
9 and there's no one else working on it, I don't know what
10 the percentage is, but the foundation of the technology
11 is a suite of Wi-Fi standards done by IEEE. So there's
12 a significant amount of work and effort in industries
13 that are feeding core basic parts of DSRC that we're not
14 doing on our own.

15 Now, what I would say, and maybe James would
16 want to (unintelligible) --

17 MR. DROBOT: -- (unintelligible), which is
18 where most of the world is today.

19 MR. CRONIN: I'm not the person to answer that
20 question.

21 MR. DROBOT: I'll answer for you. You're quite
22 a ways back, because every time something new comes out
23 in the Wi-Fi world, to move it into the DSRC space,
24 those go through testing, et cetera, et cetera. There's
25 a fairly considerable investment. I don't know who's

1 making that investment without having a market that
2 sustains it. That's why you're behind there.

3 MR. BELCHER: Let him go through the rest of
4 his presentation so we have a comprehensive view of what
5 he's saying.

6 MR. DROBOT: Sure.

7 MR. BELCHER: And then if there are questions
8 or discussion, we can have it at that point. But I
9 think he's run two slides in, and he's already --

10 MR. DROBOT: And I jumped in on it right away.

11 MR. VONDALE: Can I make one comment? I'm
12 interpreting what's up here a little differently. I
13 didn't think you were saying that DSRC was, in essence,
14 the foundation for everything else. DSRC is clearly the
15 foundation for safety, but there's lots of things that
16 are going to come from other types of technology,
17 whether it's Wi-Fi, whether it's cellular or whatever.
18 And, in fact, there are things we talked about today
19 that are going to be done by things that are non-DSRC
20 related.

21 I'm trying to make sure I understand before we
22 go forward that you're not saying that everything has to
23 be built upon DSRC. DSRC is critical to safety. It may
24 provide a foundation for a number of other things, may
25 not, but there are lots of other technologies that are

1 going to be used to do lots of other things that we even
2 talked about today in the room, so...

3 MR. CRONIN: That's a fair statement.

4 MS. CHASE: That's not what these slides tell
5 me. I see here that it says, "Technology agnostic
6 building on DSRC Link," and the two tracks are both
7 DSRC, DSRC under safety and DSRC under mobility and
8 environment.

9 MR. AUGUSTINE: I think James hit the nail on
10 the head. The point we're trying to make is we're not
11 trying to hide behind DSRC is not being considered.
12 It's being considered for safety. And if it's
13 successful, and you have messages being emanated on the
14 DSRC frequency, folks could take advantage of that.
15 We're not at all saying that they should or must or
16 we're encouraging that.

17 We're saying it's a possibility, but we're
18 technology agnostic. If it's LTE, cellular, 3G,
19 Wi-Fi, we're not there to dictate that, but we have made
20 the determination that the safety requirements require
21 something like DSRC, and it's a tradeoff.

22 Adam's got very good points. DSRC is not mass
23 produced right now, so it is expensive compared to other
24 things. That's very true. It's not a readily
25 off-the-shelf -- well, there's some -- there's some

1 commercial applications, but it's not widespread.

2 Clearly that's not its forte.

3 If we said, "Well, what about some other things
4 that are coming down the pike that could meet the safety
5 requirements that DSRC does?" then you have to do other
6 tradeoffs. Well, does it have SEC allocations, spectrum
7 and is it available today, and does it meet all the
8 robust security requirements of DSRC?

9 We're not oblivious to the fact that DSRC is
10 the only solution out there. It is a solution, and we
11 believe it meets all of our needs for safety.

12 So the point is while it's there and could be
13 leveraged, that's all we're trying to say by that slide.

14 MR. DROBOT: I'm confused by -- I don't
15 understand what the platform is.

16 MR. DENARO: I'd like to take Scott's
17 recommendation. Let's go through the rest of the
18 presentation and get that on the table. We can circle
19 back on some of these details. That would be a good
20 idea. I think the problem you had here is your term was
21 misleading, "agnostic building on DSRC link." I think
22 people are reading that as (unintelligible) --

23 MR. BERTINI: -- (unintelligible) potentially
24 leveraging DSRC if DSRC exists. I think it was late at
25 night when I was editing those.

1 MR. CRONIN: I think we pushed this, but I
2 would say I found one thing on the flight over here. I
3 flew United, and I don't know who else did, and I'm not
4 trying to advocate for United, but I read their
5 magazine. They have a nice article on our program.

6 I'll pass it around. Someone rode in a Ford Escape, so
7 we'll start it with James. It's talking about safety,
8 it does not talk about mobility, but it's getting picked
9 up on in the press by magazines and articles that aren't
10 transportation focused, so this is targeted to the
11 person traveling around the world.

12 MR. BERTINI: Surface transportation.

13 MR. CRONIN: So when we talk about data and the
14 real-time data applications -- we had great
15 presentations this morning talking about some of the
16 different data that's out there and available, and so we
17 talk about how do we bring that information together in
18 a meaningful way. We've been using the term "data
19 environment."

20 This morning we largely talked about data
21 environments that fed traveler information. There's
22 data environments that feed traffic signal control, data
23 environments that feed transit management and
24 operations, data environments that feed freight movement
25 as examples. So there's all this different kind of data

1 that's out there, and how do we bring it together to
2 enable better management of the system.

3 So we're looking at that with a program, and
4 we're looking at that with a basis of you have existing
5 data elements out there now, a lot of it sensor based,
6 but as we start to think about all vehicles as probes
7 providing information constantly, the game changes as to
8 how that information is out there and what do we do with
9 it.

10 We can think of all kinds of different
11 applications that we might try to do. We have one
12 element of the mobility program looking at how do we
13 enhance the data that's out there, make it open and
14 usable for a variety of different means.

15 Then we have another element of the program
16 saying what are the applications that make sense from
17 both having this data and having this communication
18 platform between the vehicle and infrastructure and
19 managers and other vehicles and pedestrians and transit
20 and freight and all these kinds of elements.

21 So we've been working with the industry on sort
22 of what are the high-priority applications that they
23 think the federal government needs to invest in and what
24 are applications that would be most beneficial as a
25 whole and where do we need to go, so I'm going to spend

1 a few slides on that.

2 Data environment, a lot of it talks about just
3 we want to create a multisource open data environment
4 that enables a variety of different applications
5 development. Some of this might be your general
6 transportation system and the creators that are trying
7 to create a new signal system or ramp system or active
8 traffic management system. Some of it is your private
9 entrepreneur that wants to create the next "Where is my
10 BART line?" or "What's the different kind of
11 application?"

12 I noticed, I think, 20 or more different
13 BART-related applications on my Android phone as I was
14 coming in trying to figure out when is the train coming
15 and where do I want to go. It's getting out there, and
16 we want to enable that, and we want to enable that as
17 soon as we can.

18 And so what we're looking at is in the realm of
19 data, and where we are in transportation is how do we
20 gather it once and reuse it many times in various
21 different ways; how do we make sure the data is of a
22 high quality, it's reliable and it's usable by a variety
23 of different sources; how do we look at using open
24 source to enable development based off of this data
25 that's out there and look at standards.

1 So we talk a little bit about a data
2 environment itself. There's a variety of different ones
3 that would be available, so it's looking at how do we
4 organize and collect different kinds of data, store it
5 and then make it available for folks to use to create
6 different applications and information to manage the
7 system or manage their travel.

8 And so one of the things we're doing as a part
9 of the research program is we're creating sort of our
10 data -- prototype data environment. So we started this
11 with a document and data we collected in a test bed in
12 Michigan, and we have those data files. We've also
13 then, working with the University of Michigan, took --
14 they modelled that whole network and said so what if all
15 the vehicles are generating the kind of data that the
16 ten vehicles we had in the test bed were doing. And so
17 we have that data file out there.

18 So we're starting with that, but then we're
19 looking at what different kinds of data environments do
20 we need and use to drive different kinds of
21 applications. And we're going to look at the
22 development of the data environment concept and then
23 what's then the governance and use behind it when you
24 look toward implementation.

25 On the mobility on the applications side is

1 then how do we leverage all this different kind of data.

2 What kind of applications might we try to do if we're
3 getting data from the infrastructure from vehicles, from
4 travellers.

5 There's applications that might be focused on
6 moving freight faster or might be focused on getting a
7 traveler from point A to point B in the greenest way or
8 an application for the BART system manager to alert
9 their operations that they need to reroute or add train
10 cars or different things like that, as we were looking
11 at this morning.

12 And so we want to sort of look at how we move
13 this different kind of data. One thing we know is that
14 there's a role of different data as you collect it once.
15 The same if you take the element we're talking about
16 this morning on getting travel speeds, you can turn that
17 into traveler information. You can turn that into link
18 travel time. But then you can use that to feed signal
19 control management and operations. You can use that to
20 feed rent metering. You can use it to feed different
21 kinds of applications.

22 So as we collect it once, we can use it in
23 various different ways. But right now the
24 transportation industry doesn't use travel time to
25 manage their arterial signal system. They use other

1 data. And so we need to look at how do we use that,
2 what data do we need to drive different kinds of
3 applications.

4 So then as we look at where we are, we also
5 have to build to evolve over time. Right now, we're
6 sort of in Data Environment I where there's few probes.

7 A lot of the private sector gets some of this data and
8 feeds it in, or maybe transit agencies have the probes
9 as their vehicles, but it's mostly based on having
10 sensors in the roadway or transit infrastructure.

11 So you can do some applications with that. But
12 now we start to get into an arena where there's 20, 30,
13 40 percent of the vehicles that are acting as probes and
14 providing data and information. All of a sudden, you
15 can provide different kinds of applications.

16 And then lastly, into an environment where all
17 vehicles and people and wireless devices are serving as
18 probes to the network and providing their information on
19 travel choice and behavior and different things like
20 that that now you can do a lot more in robust
21 applications, and so we need to evolve.

22 And so the last couple things as we talk about
23 sort of data and data environment is we've talked a lot
24 about DSRC, but the fundamental nature behind that --
25 one of the fundamental parts is the data that we're

1 trying to get out of those vehicles to enable different
2 applications through, and through SAE we have the J2735
3 standard, and predominantly it provides the data that
4 you're shown here, and this would go to a data
5 environment. It would also go between different
6 vehicles to enable safety kinds of applications.

7 We also are looking at, well, what if there's
8 all these vehicles and we have a decision to move
9 forward with DSRC, but, you know, the vehicle fleet
10 turnovers is going to be 15, 20 years, but we want those
11 vehicles to get benefit from safety sooner or we want to
12 enable different kinds of probe applications --
13 probe-based applications faster.

14 So we're looking at things that might just say
15 what we've called it here right now, which is the first
16 sort of five data elements up there in terms of
17 latitude, longitude, time, heading angle, speed, and if
18 they provided that data and maybe our phones that we use
19 or navigation systems that we buy or just embedded in
20 different sort of after-market equipment that you might
21 bring into the vehicle, we could put in a communication
22 device that does this.

23 So we've actually contracted with eight
24 different companies from across the globe that are
25 developing these devices and that we're going to certify

1 and use to help us in the safety pilot we've talked
2 about but to also generate data that we can then use.

3 So that's sort of the slides we put together to
4 talk a little bit about the data world and some of the
5 things and some of the applications we're trying to use.

6 I think the thing that I would close on is that
7 we really are, and I've identified a huge need of,
8 needing to get data about how the system is operating so
9 we can make more effective choices in management, both
10 as an operator and as a traveler. How do we get that
11 data, how do we make it available, and then how do we
12 spur development of applications that would use that
13 data.

14 We recognize that there are some types of
15 applications that the public sector will need to invest
16 in because the market is not there to develop new signal
17 systems per se. But the market might be there for
18 developing other sorts of applications as you see by
19 folks and apps for all the different kinds of phones
20 that you carry.

21 I'll leave it at that, and I'll take a seat
22 over there so I'll move where the firing goes.

23 MR. DENARO: I have a couple of clarifying
24 questions as you make your way.

25 The first one is, just so I understand it, back

1 on the chart we were debating earlier, the yellow stuff
2 versus the DSRC stuff, I think what you were saying
3 was -- I think if I understand what you were saying is
4 you've decided on DSRC for your time-critical safety
5 applications, and that other side would -- there would
6 be -- there's information potentially coming from
7 vehicles that can be used. Those go to a server. The
8 communication now then to these other applications is by
9 a variety of other communications, which could be
10 cellular or whatever else.

11 Do I understand that correctly? DSRC isn't
12 excluded from being on the right yellow side, but you
13 expect -- your system design is to have other
14 communication systems provide that information.

15 MR. CRONIN: Currently we are going through the
16 design of the system to do just what you said. If DSRC
17 is out there, we use it, but if it's not out there or if
18 it's not out there as predominantly as we need, we'll
19 use other technologies.

20 MR. DENARO: Then one more question to clarify,
21 then, what I didn't understand in the last couple of
22 slides. You mentioned, which is a big question for me,
23 the fact that they installed -- if you're going to do
24 collision avoidance, something like that, you've got an
25 enormous number of cars that are going to have no

1 communication or at best they're not going to have DSRC.
2 Are you saying with these last couple of charts that you
3 are considering that the safety application would be
4 handled by other communication technologies that already
5 exist?

6 MR. CRONIN: No. What we're saying is that we
7 think through the after-market, we can get DSRC-enabled
8 communications that are not -- what the difference is
9 they are not providing the safety application. They're
10 just providing the information, so the folks that do
11 have vehicles with safety applications on it will get
12 messages from other vehicles who maybe have got it
13 announcing where they are, but they're still doing it
14 through DSRC.

15 MR. DENARO: Got it. Thank you.

16 MR. VONDALE: I have a question.

17 Let me use by way of examples. I just saw a
18 demonstration of the latest version of SYNC, and, for
19 example, in this vehicle you can be driving along and
20 push a button on the steering wheel and say "Find ice
21 cream."

22 MS. GIULIANO: What is SYNC?

23 MR. VONDALE: It's an open platform. I'll give
24 you a good example of what SYNC is. You're driving
25 along, you push a button on the steering and you say

1 "Find ice cream." Then the voice will say "Nearby" or
2 ask you where you want it. You say "Nearby," and then
3 it will list five ice cream parlors within a short
4 radius. Then if you want -- you pick which one you want
5 to go to, and then it will automatically program the
6 destination you put in.

7 So I'm thinking, for example, parking. I just
8 sent an e-mail to our geeks. They're all at the
9 consumer electronic show today. I could just see I'm
10 driving along, and I say, "Find parking." And somehow
11 you've loaded that. I want to find out what you can get
12 on 511 right now. I can see very easily you could find
13 parking. It seems to me that a lot of this is already
14 underway in the private sector and through the Internet,
15 whether it's a smartphone or your own vehicle using
16 voice and so on.

17 A lot of what you're doing, I assume, is to try
18 to help enable the development of standards and
19 information that's going to be able available so systems
20 like SYNC can use it, smartphones can use it and
21 supporting the public sector and putting parking
22 information in so it can be obtained and on so.

23 It just seems to be the harder part, of course,
24 is what you're working on on the safety side where
25 there's only -- only you can really facilitate that.

1 DSRC seems to be the main way to get it. And there's an
2 infinite number of types of information that can be put
3 into systems that these new systems like SYNC can get to
4 and deliver to people in their vehicles and smartphones
5 and so on. Is that what you're talking about?

6 MR. CRONIN: Yeah. That's fair to say. One of
7 the things, as sort of you observed from this morning,
8 there's not too many other metro areas in the U.S. that
9 have this data that's available here, so one of our
10 roles is advocating data availability and open data so
11 you could have these applications, because the person
12 that goes and buys any vehicle, while, yes, they live in
13 one location, they're driving all over the place.

14 So they're going to start to expect the same
15 kind of -- they don't want to say "Find parking" in
16 Detroit and get it and "Find parking" in Ann Arbor and
17 it's not around. They're going to want it everywhere.

18 So I think that's one of the things with the
19 program on the mobility side. What we're trying to
20 understand is what is sort of this core information that
21 people need and what is sort of the federal role or
22 local public sector role in making some of this
23 information available, what are the standards they need.

24 MS. CHASE: Something positive, I really like
25 the whole data approach, and looking at that, I think,

1 is critical. I think one of -- for me, what I see as
2 being obstacles right now in cars is that there aren't
3 standard APIs for car data, and what data you can get
4 out of a car is not at all -- car manufacturers won't
5 let a lot of it out and owners don't have access to it
6 even though it's their data and they've been producing
7 that data.

8 So I think a role of the government could be to
9 say what comes out of OBD-II, here's some factors that
10 there should be no discussion on, you should definitely
11 get, and then you could argue with the car manufacturers
12 about which other pieces they're willing to let go and
13 standardization of those APIs.

14 The connectivity --

15 MR. CRONIN: We are partnered, as Ron mentioned
16 earlier, with the European Union and with the Japanese.
17 One of the key areas in sort of both those arenas is
18 sustainability and looking at data that we get out of
19 the system and how do we use that to manage the system
20 from a sustainability perspective. We're starting to
21 look at that.

22 I would also say that while -- so safety and
23 when we talk about the data and information we need to
24 drive safety, that's a first subset of the slide at the
25 end that sort of tried to show all the little data

1 elements that were out there. So there's a basic safety
2 message, which is these first five or six elements, and
3 there's a second part, which is all this other
4 information.

5 So we've been working with SAE to get all that
6 information, but sort of what we're trying to articulate
7 now is DSRC will be one way to get that information out,
8 but what we're trying to articulate is that there are
9 all kinds of other communication methods that may also
10 be used or may be used instead to get some of that other
11 information out.

12 MS. CHASE: Just a part two to my observation,
13 on that last slide of yours, as we know with smartphones
14 today, you can get all sorts of location and
15 acceleration and times data, but you don't, of course,
16 get -- there were parts up there. You had a VIN number,
17 but you wouldn't know the mass, size, shape when you
18 look at, you know, fuel consumption and all sorts of
19 other things.

20 For me, an impediment -- and as I talked to
21 innovators around the world, and I've been pushing
22 Aneesh on this point as well, is that the lack of
23 privacy norms and standards in the U.S. is a real
24 impediment. This was a comment I wrote for the RITA
25 piece as well. I think it's something that needs to be

1 resolved because today cell phone companies are using --
2 capturing my real-time data without telling me and
3 selling it off.

4 And, likewise, there's also interesting data
5 that we're yearning to have out of people and their cars
6 for transportation. How in the heck do people get from
7 place A to place B, what speeds? It would be nice to be
8 able to have some standards around what is -- what we
9 give up, what we don't give up, who owns the data,
10 trackability of it. All of these types of things are
11 very ill-defined in the U.S.

12 I think that's a real impediment as we move
13 forward and there's more and more people getting both
14 smartphones and what's happening to car data.

15 MR. VONDALE: You might want to mention there's
16 a major effort that's being funded by the government
17 through VIIC on the whole privacy issue. In fact, I
18 think you're leading it.

19 MR. DROBOT: We actually are.

20 MR. TOTH: What is API?

21 MS. CHASE: Application programming interface.

22 MS. BRIGGS: We can't solve the lack of privacy
23 standards for the U.S. or for smartphones, but one of
24 the steps that this program did very early on -- it was
25 actually at the urging of the auto companies -- was to

1 address the privacy issues. And back in 2007, we
2 developed a privacy principle which was developed along
3 with the privacy advocate groups. It was a pretty
4 comprehensive effort, and we recognize that throughout
5 everything we do, we're going to have keep revisiting
6 that and going back to the privacy community.

7 I understand what you're saying, is that it
8 would aid us and others to have broader privacy
9 principles like we feel like we could do for this
10 program.

11 MR. BERTINI: It might be worth also briefly
12 mentioning that one of the reasons that we also work
13 with FMCSA for commercial vehicles and with FCA for
14 transit vehicles is, as I understand it, in those
15 platforms, particularly commercial vehicles, the data
16 environment is open and is standardized, so that's one
17 of the reasons why we're emphasizing cars and non-cars,
18 because we think there's some things -- some aspects of
19 this that may and probably will happen quicker in a
20 fleet environment just because of the openness and the
21 way that those vehicles are procured and assembled.

22 MR. DROBOT: Let me ask a couple of questions.
23 First of all, let me get off of the radio issue and
24 start off with the statement that -- figuring out a way
25 of making data useful and usable across the nation.

1 Laudable goal. Thank you.

2 When I look at the presentation, I think at a
3 very fine, conceptual level I get that, but to build a
4 platform involves a lot of issues. I'm sort of -- when
5 you use that term, and maybe I shouldn't be holding onto
6 it, but I'm going to.

7 In building a platform, you have one element,
8 which is the language we use to describe things, make
9 things uniform, et cetera. Then when you find it, data
10 tends to have -- tends to be dirty, has biteouts from
11 it, all kinds of problems. And when you look at a good
12 platform, a real platform, there's a tremendous amount
13 of software that goes into figuring out whether the data
14 is good or bad.

15 You know, we heard about this earlier today; it
16 doesn't come free. To what extent are you looking at
17 those components, especially if I have such
18 heterogeneous data from what I see from the list.
19 That's part of the platform.

20 The next thing is there's certain analytics
21 that I may want to perform. I don't want everybody to
22 reinvent them over and over again. They have to be
23 common. What I did not see in the presentation is any
24 semblance of an architecture of the platform.

25 So technologically in some sense to get advice,

1 get some feedback on, it would be useful and best to
2 present what's the architecture of this as a platform.
3 Does it have the features, does it have the elements
4 that really make it so useful that somebody would want
5 to put their application on top of it?

6 I think Jim mentioned an example of where is
7 the ice cream place. I'd like to be able to get that
8 again in any city. So there has to be all the creature
9 comforts that allow you to be able to put this data in
10 easily and make a matchup from it so you don't have to
11 hire an integrator for every piece of data that you had
12 and be sort of at their mercy with their kind of house
13 structure. This is where the innovation comes in.

14 So the larger platforms put together by Google,
15 et cetera, they're easy to build new matchups. I don't
16 need to hire an integrator to do that; I can do that
17 myself, essentially, and that's because all the creature
18 comforts are in the platform itself.

19 So a notion I think of is the complexity of a
20 platform is what needs to be easy for users. Can you
21 give us some clue as to what that architecture is and
22 whether the resources we're putting out are actually
23 enough.

24 MR. CRONIN: Probably not today. The reason
25 being there's two elements of it. One is we even

1 embarked on a whole system architecture development
2 process that ties into multiple communication platforms,
3 multiple vehicle types, multiple other issues, and we're
4 in the CONOPS and about to launch into the requirement
5 phase. This summer we're expected to be done with an
6 architecture for what we're calling the system.

7 Now, if you talk about data in particular, I
8 fully agree there's a lot of issues related to the data
9 reliability and quality and valid checking and
10 consistency. And if you're trying to get transit data
11 and traffic data and traveler information data collected
12 over different times at different frequencies with
13 different rates, how do we pull that information
14 together and make it so that it's meaningful to someone
15 who is creating the application, that they can rely on
16 the information collected in city A is of the same
17 quality of city B or not.

18 So we've identified a lot of those issues. We
19 have over the next three years sort of a research plan
20 to try to build data environments that take that all
21 into account and drive applications off of that. We
22 haven't done it yet. Part of it is letting the system
23 architecture development process run its course. Part
24 of it is trying to understand the data needs of some of
25 these different kinds of applications.

1 MR. DROBOT: So let me look at national
2 programs, and let's say a place like NSF. You have a
3 site director, a computer information science and
4 engineering director. They have a budget, I think,
5 that's pretty close to 500 million a year. We have all
6 the computer scientists in the nation, probably the best
7 at it. Are you leveraging or motivating any program
8 like that to use some of their investments to solve your
9 data problems? This is why they exist in some sense.

10 MS. GIULIANO: May I jump in? I'm not the
11 technology person at all, but what I'm hearing is
12 there's sort of this model out there of the widely used
13 instrument that benefits from economies of scale and
14 people can plug into it and do all kinds of things with.

15 Getting back to sort of the ground of what I
16 understand about data is that every single region has a
17 different combination of data that is coming from
18 different sources, that is using different -- all kinds
19 of things. So the concept of an architectural model
20 that would actually apply to New York and San Francisco
21 and Los Angeles and Chicago and Phoenix and Houston, I
22 think would be a really challenging thing to do. Maybe
23 because I don't understand any of the technology, it
24 seems like it would be very challenging.

25 So my question is: Is this sort of a concept

1 of model that people would then kind of use parts of, or
2 what? And I'll kind of premise that by saying we
3 actually have a research project right now, which is to
4 take all the heterogeneous data that's being spit out of
5 Los Angeles and create an archive that can be queried.
6 So all the data, we have to be able to understand it.
7 By the way, the computer scientists are doing that part
8 of it, not me. So I do have some knowledge of what the
9 data issues are.

10 So to me, the computer scientist can
11 actually -- they can take care of all kinds of
12 heterogeneous data and figure out what to do with it.
13 But I see this problem as bigger, so help me.

14 MR. CRONIN: I think that it's a big challenge
15 if you look at it now because we're all providing and
16 getting different types of data at different granularity
17 and different locations. So if you look at this slide
18 with the different data environments, in doing it in
19 Data Environment I is very challenging. In Data
20 Environment III, it might be a totally different
21 situation where the public sector is no longer putting
22 in sensors. It's hard to say that they're not, because
23 they might still need it to run different systems.

24 MS. GIULIANO: I get it.

25 MR. CRONIN: But if every vehicle is providing

1 this set of information and other information that's not
2 shown there and we can manage the system based off of
3 that without sensor data, it's a different situation.

4 Then there is national consistency. But there's going
5 to be a human challenge getting to that. We're trying
6 to look at -- and that's why we're looking at how do we
7 evolve this and what do we need to do. It is a big
8 challenge.

9 MR. BELCHER: Maybe from a simplistic
10 standpoint, the data that you would be talking about on
11 the active safety applications in any vehicle
12 infrastructure communication is new data. It's data
13 that's being created on a single platform for that
14 purpose.

15 And what you're seeing in vehicles on the
16 mobility side right now, which you see with SYNC, what
17 you're seeing with General Motors, what you're seeing
18 with some of the other automobile manufacturers, is
19 you're seeing them actually being a platform to pull
20 Internet data on.

21 So instead of having -- for example, with Ford,
22 what you're doing now is you're taking advantage of
23 Google and you're taking -- you've just signed an
24 agreement with Enrex, so your traffic data that you're
25 putting out is now more widely available, but it doesn't

1 have to be -- it doesn't have to interact with other
2 data sets.

3 So if you think about what's happening in
4 vehicles now, it seems that it's opening itself up,
5 which is, I think, why you said agnostic with respect
6 to -- agnostic with respect to mobility applications.
7 Those mobility applications don't necessarily have to
8 interact or interface to create a common data set. And
9 you don't necessarily have to pull MTC's traffic
10 information into the vehicle and then when you're in
11 Cleveland pull their traffic information. That's not
12 what you're ultimately driving toward in this
13 environment, is it.

14 MR. CRONIN: Not necessarily. But I think it
15 also depends on what application you're trying to do.
16 Valerie reminds me that I should remind you that one
17 element is -- it kind of ties to the purpose of this
18 group -- we are a research program and a research
19 office, and we're not implementation. We're trying to
20 get to implementation. We're trying to understand what
21 are the challenges that we face, that we need to uncover
22 so that we can help us get there and define the
23 standards.

24 MR. DROBOT: So let me me make one comment.
25 There are research issues which almost any --

1 MS. CHASE: Adam, can you use the other
2 microphone?

3 MR. DROBOT: On the research front, there are
4 issues that almost any organization that deals with data
5 will face. It would seem to me that there is some
6 mixture of that. That mixture of what is really
7 specific to transportation that no nobody else will
8 touch, you have to do something that's critical.

9 MR. CRONIN: Yes.

10 MR. DROBOT: Let me go through the discussion.
11 I think Robin sort of touched on it a little bit. You
12 have the OBD, and I have the ability to do two-way
13 communication actively, things in a car. Not only do I
14 read data and push data, but eventually I have a control
15 function that I can deal with. It would seem to me that
16 in the end, that control function and how do I react to
17 data -- how do I react to that in a reliable way is a
18 long train of research that will have to be done before
19 you let this stuff out on the roads. Look at the safety
20 function.

21 Jim, I don't know whether you just opened it up
22 for anybody to be able to access the OBD and push the
23 buttons. I can't see that happening.

24 MS. CHASE: That was the whole point of DSRC,
25 is that they won't let that happen.

1 MR. TOTH: Who is "they"?

2 MS. CHASE: Car manufacturers and the U.S.
3 government and liability won't let anybody --

4 MR. DROBOT: Robin, I have the opposite
5 feeling. In fact, the discussion with the automobile
6 manufacturers is they cannot afford to do all the
7 research that needs to be done by themselves. They
8 would like somebody else to help participate in this and
9 make this real over time. You want active safety to be
10 a reality. They're going to be prudent about it because
11 they have liabilities, but I don't think they're going
12 to be a blocker.

13 MR. DENARO: I would ask that you speak so that
14 we can get others committee members' --

15 MR. DROBOT: I'm sorry.

16 MR. DENARO: Steve, do you have a comment?

17 MR. ALBERT: It seems to me JPO is trying to be
18 an enabler to make this stuff happen. The question has
19 been how do you roll this out. Have you guys considered
20 trying to hire or contract a product development firm,
21 or would you consider that for rollout? Because it
22 seems -- I realize a lot of the data is in the purview
23 of, let's say, transportation agencies in general. It
24 does seem a little bit of a leap of faith in terms of
25 how all this might be rolled out. Any consideration to

1 hiring people who do that for a living?

2 MR. BERTINI: I think we have a strategic
3 research plan, and then there's technology transfer
4 moving toward implementation. So we need to quantify
5 the benefits and determine what the pieces of the puzzle
6 are before we can start building the puzzle, I guess.

7 Again, we're not the deployers, but we do work
8 with and are engaged with the deployers, and we do have
9 competitive -- open and competitive processes for
10 awarding -- for selecting and awarding research funding.
11 And so usually the folks who are submitting proposals
12 for that funding are ones who are engaged in this kind
13 of a realm.

14 MR. ALBERT: I guess I was really kind of
15 dancing around the first question there of when you talk
16 about encouraging the population to use the data. It
17 seems to me that's somewhat like a product. How do you
18 encourage people to use a product? And there are firms
19 that look at that. That's just a question.

20 MR. DENARO: Will there be, like, sort of a
21 level of model deployment where you're going to work
22 with a local government or city or whatever it is and
23 implement some number of features and that sort of
24 thing? Is that part of a plan?

25 MR. CRONIN: We have sort of two things on that

1 front. The most visible one is the one we put out, I
2 guess, a notice of intention or something. I don't even
3 remember what it's called. It's a one-pager announcing
4 our safety pilot, and that essentially is a model of
5 deployment of how we think the safety elements would
6 roll out.

7 And one huge element of that is we will be
8 collecting the data generated from that, and our full
9 intention is to use that data and sort of mark it, for
10 lack of a better word, for the availability of these
11 data sets and then starting looking at how would we use
12 that for mobility and so forth.

13 So the safety pilots are, first, as we look at
14 how the data program, the mobility applications program
15 and even to some extent a little bit more the V2I safety
16 programs, we think that there will be another round of
17 deployment-related items that will come after the safety
18 pilot, after we've defined this new architecture that
19 would work towards that.

20 MS. FLEMER: I just want to suggest that
21 there's that approach, which is research oriented, makes
22 a lot of sense. But for metro areas and cities who are
23 chomping at the bit to do more, I think our
24 recommendation and others' will be to Congress that we
25 start deploying more comprehensively a data collection

1 effort. And it's not necessarily installing new
2 technology to start data collection but to really assess
3 systemwide what data is already there.

4 We don't have the resources as public agencies
5 to know who else is out there collecting data that we
6 just had an agreement to share it. We're not going to
7 install sensors. We are really at a loss to understand
8 that. It is a research question, but it's almost moving
9 into deployment. That's why the Ciscos and the IBMs and
10 others are starting to gravitate to partnerships,
11 because it is a systems view of data collection.

12 I'm hoping -- and I don't want to lose that as
13 maybe a recommendation from this group in addition to
14 what is being described today, is for those who are
15 already kind of cutting their teeth on this issue to
16 more rapidly deploy lessons learned by doing a more
17 comprehensive set of deployments, data collection, that
18 first bullet. It would be a very helpful thing,
19 especially the metropolitan areas.

20 MR. DENARO: Gary, did you have a question?

21 MR. TOTH: I actually have a basic question.
22 Genevieve, you're not the only person here who is
23 technology challenged with respect to this. When I came
24 here today, based on some of the stuff I read before, I
25 understand you're pushing -- you're moving towards

1 IntelliDrive. You're trying to develop it. And one of
2 the fundamental principles or keys to it is how you
3 communicate among vehicles wirelessly.

4 When I saw the presentation before, you made it
5 sound like VSRC, you're not sure whether it's going to
6 be developed, sort of advising you're not controlling
7 that or trying to dictate that as part of your
8 IntelliDrive process. Am I just missing something.

9 MR. CRONIN: We are actively pursuing DSRC and
10 that it's going to be a requirement at this point for
11 safety. That's the research plan we have in place to
12 assess it. That is the case so far. And if we lean in
13 that direction, then we would pursue into a rule-making
14 or other mechanisms through NHTSA, so we are pursuing
15 that.

16 What we're saying is that many mobility
17 applications, environmental sustainability applications
18 wouldn't require DSRC. It may very well flourish
19 earlier based on other communication systems that are
20 readily available now or still need to be developed.

21 MR. BERTINI: Then DSRC, then, will be the
22 fundamental underpinning the safety portion of it. And
23 one other angle to that is looking for a way to
24 accelerate the availability of DSRC-generating devices
25 in vehicles, not necessarily ones that are required as

1 new vehicles, because it will take a long time.

2 If NHTSA said in 2000-something, all new
3 vehicles henceforth must have this system, we would like
4 to generate or assess or research how we can accelerate
5 those safety benefits and the other mobility
6 environmental benefits that flow from that quicker.

7 So it's not saying that we are -- it is
8 continuing to say that we're committed to DSRC for
9 safety and other forms of wireless communication for
10 other applications and looking for ways to accelerate
11 the availability of DSRC devices in vehicles. We're
12 doing all those things simultaneously.

13 MR. KISSINGER: The auto insurance companies
14 are going pretty quickly to what they're calling
15 just-in-time insurance, which is, I understand,
16 predicated on taking over that vehicle sensor data and
17 ideally some vehicle infrastructure sensor data so that
18 your insurance rates could be set, like, every five
19 seconds or something. It strikes me that -- you know,
20 there's a lot of money in the insurance industry. It
21 strikes me -- I don't know, again, how they do that,
22 whether that's in another whole data system over here,
23 but it seems like that is a field or a platform or an
24 area that could be built upon partly to answer that
25 first question.

1 MR. DROBOT: That's built on top of existing
2 systems essentially.

3 MS. CHASE: In answer to your point about the
4 vehicle insurance, it's now required by law, and it's
5 offered in the state of California as an option. But
6 most states it's not the case, and insurers have been a
7 decade now experimenting and not getting there. I've
8 spoken with Progressive, which is the foremost guy.

9 It's taken them ten years to build the box that can do
10 this, and there's still kind of a funny thing going on.

11 The point of that box and one of my
12 recommendations for you guys as to how to get DSRC
13 faster into vehicles, I had a long conversation with
14 Peter Appel in June that was an epiphany for me about
15 how we can resolve our disagreements, which was there is
16 a radio -- open radio, which is software-defined radio
17 or cognitive radio, which is to say that you guys don't
18 have to choose, and if you can speed the development and
19 lower the price of open radios, they will be used in
20 devices throughout the system. And then you can put --
21 DSRC can be turned on in a flash when you've got
22 everything else going on. I think that would be a high
23 priority item.

24 One of the impediments of that, how far -- I
25 think it should be close, as I understand it. What is

1 it that's needed to nudge that into the realm of going
2 into every NAVTEQ box or every cell phone. I think that
3 would be the speediest piece.

4 And for the insurers, there's a whole bunch of
5 innovators, a lot of people playing around with boxes
6 that are attached to the OBD-II to do all sorts of
7 things. Some of them are open and some of them are
8 closed. And a whole bunch of people are investing in
9 that. And I have yet to find one that is cheap and
10 great.

11 So I don't know whether the price is going to
12 solve this problem fast enough, but it feels to me that
13 when that happens, it will unlock a huge amount of
14 what's going on here, just as the iPhone generated
15 500,000 apps over the last two and a half years.

16 And to Adam's point of what's an easy platform,
17 an open in-vehicle device that you attach as an
18 after-market thing, I think, will open the floodgates to
19 innovation in cars, including safety apps. And it will
20 be very nice if we had before them standards for car API
21 data, because I could look to what API is doing and what
22 Ford SYNC is doing, I'm sure they each had different
23 ways that they're pushing that data out.

24 And if we can before they all start
25 implementing their own thing, and I'm sure Nissan has

1 its on and Toyota has its own, that would be fabulous if
2 there was standards in that respect.

3 And then when people make their open vehicle
4 boxes that get hooked up to the OBD-II with open radios,
5 it will be 80 percent of the way homefree towards DSRC.

6 We just have to build up the roadside infrastructure,
7 and it will be all done.

8 MR. DENARO: Gen?

9 MS. GIULIANO: Even though I had this thought
10 ten minutes ago, it's actually relevant to what Robin
11 said. I'm still trying to understand what the strategy
12 of IntelliDrive is. I'm sorry.

13 So I want to say something and you tell me if
14 I've got it. That is, we want to use technology --
15 let's pick on safety -- to increase safety. We're sure
16 that with more technology out there we can improve
17 safety. And the end game is your big green circle where
18 most vehicles are probes, they have all the data we
19 want, everything is homogeneous, not heterogeneous, the
20 apps are flying and everybody is happy. That's the end
21 game.

22 And so this is about how you get to the end
23 game. What we have now is the bad red bubble at the
24 top. So we're working really hard in doing all these
25 really difficult things to sort of eke out a little bit

1 more technology application, better ramp metering,
2 coordinated signal timing, et cetera, et cetera, right?

3 So we're eking these things out with, you know,
4 the crummy sensors that we have now, right? They're all
5 heterogeneous and giving us problems. So since the end
6 game is this big green blob, which is all about huge
7 economies of scale, common technology here, then Robin's
8 point, it seems to me, is right on, because what we
9 should be about is how do we get to the end game quicker
10 rather than slower.

11 So there's a real tradeoff of investing in how
12 you deal with the red bubble better versus how you
13 incentivize or develop tools to get to the green bubble
14 faster.

15 Do I get it?

16 MR. CRONIN: Yes. But I think we -- that's a
17 great point. I think we have to look at our research
18 program. It's not clear to me right now that we have it
19 set up with how to get to the green bubble faster on the
20 mobility side. We're sort of dealing with how do we
21 make these steps. That's a good point.

22 MR. KISSINGER: Can someone comment on Robin's
23 point about the open radio? I mean, I don't know
24 whether that's -- we've reached the -- that's the
25 solution or whether she's the only one that feels that

1 way or whether we need a subcommittee to look at open
2 radio.

3 MR. DROBOT: Radios are very definitely heading
4 in the direction Robin said. It's going to be commonly
5 shared, software driven. It's moving in that direction.

6 MR. DENARO: But it's a matter of time, and
7 there will be a lot of other solutions in the meantime.
8 The one just mentioned earlier, I have a reasonable
9 amount of familiarity with it, what the insurance
10 industry is doing. I'm more optimistic than Robin is.
11 I think it's coming and it's coming fast.

12 The reason is, and this, by the way, also ties
13 to our discussion of privacy earlier, privacy goes away.
14 You will sell your privacy if you get a benefit. I
15 guarantee you will. What's happening with insurance,
16 these systems are going to record where you drive, when
17 you drive, where you go, how fast you drive, how often
18 you exceed the speed limit, how fast you take turns, how
19 fast you accelerate and how much you brake and how hard
20 you brake.

21 I mean, it's literally going to take your
22 entire profile. You're going "Not in my car, I'm not,"
23 until they say, "Well, if you put this in your car, your
24 teenager's insurance goes down by 82 percent." When you
25 hear that number, you go, "Well, maybe that's okay after

1 all."

2 Anyway, what I'm saying is when these
3 benefits -- I think this is the magic of this open
4 architecture and your applications, when there is
5 sufficient benefit that can be provided to the
6 consumers, they are going to opt in with this. They
7 might even purchase that device that goes in the vehicle
8 and put on the OBD boxes and all that sort of thing.
9 Really, it's going to come down to what is the business
10 model essentially, what is the consumer getting.

11 MR. DROBOT: There is a great example of this
12 in the U.S. called the buy-here-pay-here car market,
13 secondhand cars in which roughly one-third of them have
14 a device implanted where a buyer and the owner of the
15 loan agrees to have a device that totally gives away
16 their privacy. The cost of those has come down to
17 something pretty damn small.

18 By the way, this is an example of where you put
19 a device in a car, it accesses some critical functions
20 and does it in the after-market for fairly rapid
21 deployment.

22 MS. GIULIANO: I'm sorry to interrupt here.
23 Are you saying that the price of the vehicle with your
24 privacy given away is very low? Is that what you're
25 saying?

1 MR. DROBOT: No. It turns out the vehicles go
2 for a high price, a high-interest rate, but the cost of
3 goods that goes into the car is less.

4 MS. CHASE: I'm intrigued by what Gen said. It
5 rolls into another path that could happen, which is I
6 think DSRC and the financial commitment required by the
7 U.S. government to have it roll out nationwide will be
8 very easy and fast for you to get it if you wait seven
9 years and you let all the vehicles who purchase
10 after-market devices that have open radios, and you'll
11 say, "You know what? We've had the 70 percent soft
12 safety stuff built by the private sectors. To get the
13 last 30 percent, we need to do X and we turn the switch,
14 because now everybody has got all this stuff going on."
15 We proved that technology can do a whole lot of stuff.
16 And you can get that extra little lift with the expense
17 in terms of vehicle building.

18 I feel today we're asking the federal
19 government to finance a huge lift to get to the hardest,
20 most expensive piece first, and then you're saying, "We
21 can give you these other little, tiny benefits
22 underneath."

23 I think another path might be let's get all
24 these little, tiny benefits underneath first, which are
25 easy and quick, and then now you'll see how great they

1 are and we can add this extra lift at the end. I think
2 it's a faster way to get to the big bubble, is to enable
3 people to use after-market devices.

4 And if we look at the car industry, the
5 interesting technology stuff has been all after-market,
6 because the cars take so darn long to build -- to do all
7 that stuff. It's the after-market that has brought in
8 the innovation. And I still -- I think insurance is the
9 killer app, but I don't see the insurance companies
10 moving to it. A side point.

11 MS. BRIGGS: The point I wanted to make is we
12 don't have Walt Fehr here, who is our chief technology
13 officer for the JPO, who is leading our architecture
14 development work. We also do have a technology scanning
15 project, and we have looked quite a bit at software to
16 find radio.

17 And the only point I wanted to make was I think
18 that we would be very happy to have Walt talk about some
19 of these things in more detail at the next meeting or to
20 have a separate meeting with those of you who are really
21 interested in this topic and have you give us your
22 thoughts on how we're doing with the architecture
23 development and whether what we're doing makes sense to
24 you. That is an open process, and we want people who
25 have good thoughts on this to contribute to that. We

1 would be happy to do that.

2 MR. AUGUSTINE: And I just wanted to follow up
3 on the cognitive radio. We have been working with
4 several researchers who are involved in producing those.
5 I think the last time we actually looked at that
6 closely, the dollar -- the cost was still fairly high
7 and, depending on who you talk to, a few years or
8 imminent, but it's not here today. That's the trouble.
9 But clearly we're very interested in that.

10 We agree that if we had a software-defined
11 radio, that would solve many of the problems. That
12 would be wonderful. To the extent that we would
13 actually spend dollars to invest in accelerating it,
14 that's a different question. It's an interesting
15 question. Depending on our timelines and how research
16 goes, it's worthy of consideration. We clearly see the
17 value of the software-defined radio meeting our safety
18 needs and addressing some of the challenges we have.

19 MR. SWEATMAN: I just want to comment a bit
20 from the perspective of a safety business, if you like.
21 If we look at this in terms of the bigger picture where
22 we started out where IntelliDrive and its previous
23 incarnation was really going to be an historic joining
24 together of the vehicle community and the highway
25 community, and we were going to have one big system that

1 would be operable. For various reasons, it didn't quite
2 turn out that way.

3 But if we look at it as a safety application,
4 at the end of day, as was pointed out earlier, we don't
5 have a national transportation policy in this country,
6 but we do have a policy to improve safety. Currently,
7 the U.S. is far from -- maybe 20 years ago -- the world
8 leader in safety. It is now way, way, way down the
9 list.

10 On top of that, we're very dependent on
11 technological improvements to improve safety because we
12 are very disinclined in our society to bring in new laws
13 and enforce them. And so we rely on the technology.
14 We've got a certain way down the track with the
15 technology, which required radar sensors and relatively
16 expensive sensors in every vehicle.

17 So from the safety perspective, if we're
18 looking at a progression over time as to where we're
19 going, IntelliDrive safety is a really smart move
20 because it's much cheaper than the trajectory we were on
21 up to this point where we have to have all the sensors
22 in every vehicle. So now we have relatively low-cost
23 communication between the vehicles to provide that.

24 So I think we need to bear this in mind, that
25 this country needs to leap ahead in safety. And talking

1 about being ten years behind, we're probably ten years
2 behind in safety. This is what's required to move it
3 forward. I think we get into trouble when we start to
4 try to leverage from one area, like safety, to other
5 areas and so on, which comes first.

6 But, unfortunately, on the policy front, we
7 only have a clear message on safety, and IntelliDrive
8 safety is going to be the most effective and the most
9 cost effective way to go about it.

10 MS. GIULIANO: Having taken laws off the table.

11 MR. SWEATMAN: Yeah.

12 MR. DENARO: Sensing a lull in the questions
13 currently, what I'd like to do is could you put back up
14 your first chart, which are the committee questions, and
15 let's see if we've answered those.

16 The first one is: Does JPO's ITS research
17 initiative provide an open platform for further
18 development by others?

19 MR. DROBOT: My contention is I don't think you
20 can tell.

21 MR. DENARO: Because of what you said earlier
22 about there's more work. Let me ask a question about
23 that. I actually had a question earlier that I didn't
24 ask because Adam did ask about there's more work to be
25 done. You said, "Well, we're at this stage. We're not

1 at that stage yet."

2 In your plan, is there a spec, a document
3 that's going to come out that defines the architecture?

4 And at some point you're going to invite a contractor,
5 some company, who is doing all the work to develop that
6 spec, and that's where it's at, that part of plan.

7 MR. CRONIN: We have a contractor right now
8 developing this architecture. We're doing it in an open
9 way, as Valerie mentioned, trying to get -- including
10 the CONOPS needs, doing requirements. We're about to
11 move into requirements. We'll go to an open process to
12 getting that, ultimately with the architecture in the
13 summer. The expectation, then, is that the test bed
14 facility that we have, we would then do a contract to
15 upgrade that to reflect this new architecture, and then
16 as we move into any other deployments, they would also
17 reflect this architecture.

18 MR. DENARO: So I think you're both right.
19 You're not there yet. There isn't an architecture yet,
20 but it is your plan to have that in place.

21 MR. CRONIN: So probably the presentation more
22 defined various themes that we're pursuing that are
23 being fed into the architecture development but also
24 sort of driving the approach to the research.

25 MR. SUSSMAN: So what is the time frame whereby

1 Adam may have an acceptable answer to his question? He
2 can understand enough about the architecture to know
3 whether the answer to the first question up there is yes
4 or no. Are we talking six months from now, three years
5 from now? What's the ballpark?

6 MR. CRONIN: Hopefully in the next few weeks,
7 he'll have from a concept level some information, but
8 probably the more definitive would be August. That's
9 when we plan to have the architecture.

10 MR. DENARO: Other opinions? Is this an open
11 platform for further development by others?

12 MS. CHASE: It is an open platform by every
13 stretch of the definition, but I'm interested in others.

14 MR. DENARO: For others, it might not be
15 interesting.

16 MR. TOTH: Can I ask why you think it's not
17 interesting?

18 MS. CHASE: It's uninteresting because of the
19 expense of building it out. It's a very complex
20 standard that if you want to do anything besides car
21 safety, you would not bother with it. And it hasn't had
22 the infrastructure built out that's required to make it
23 happen also.

24 MR. DENARO: Robin, what about on the non-DSRC
25 side, which is the yellow side there where it's based on

1 others assuming that there's an architecture in place.

2 MS. CHASE: I think what -- as my
3 interpretation of what I think was being said was we're
4 doing DSRC. Because you've done that, people can
5 leverage it or not, and we're interested in other apps.
6 We're interesting in making a data environment. I think
7 the whole data environment thing, excellent. I'm behind
8 it. As I said, I think the whole DSRC, I'm not there.

9 MR. BELCHER: Let me just clarify that. We're
10 not there now because we haven't developed -- it's the
11 platform. That could change once you have built out or
12 once you are starting to deploy IntelliDrive. It could
13 become more attractive, and costs could come down when
14 there is -- I mean, if you have radios in vehicles and
15 they're using them to communicate with each other
16 through DSRC, that may make it more attractive. At this
17 point, it's not attractive.

18 MR. KISSINGER: Another data point here is that
19 the lowest method of work is a long time in highway
20 industry. The rule of thumb is you can take a
21 market-ready fully validated technology that are a whole
22 lot less complex than we're talking about here, and on
23 average, we're lucky if half the states adopt it in
24 seven years.

25 So it isn't necessarily that helpful to look

1 back and say we're frustrated because we haven't seen
2 more progress in this. The real question is what can we
3 do to accelerate the progress as we move forward.

4 MS. CHASE: There's something I haven't yet
5 said is that one of the things that bothers me about
6 DSRC and as we think about the transportation sector --
7 of course, Scott has heard me say this -- is that we've
8 said transportation technology deserves its own
9 engineers, its own standards, its own everything, that
10 we're going to develop technologies that are just for
11 transportation only, and so, therefore, it will always
12 be smaller and marginalized.

13 Until transportation says we're just as good as
14 banking, as good as health, as good as education, we're
15 going to continue to be marginalized. Transportation
16 has to get on the bandwagon with everybody else's use of
17 Internet protocol, standard radios, standard devices,
18 consumer-level stuff.

19 And as long as we keep saying our train guys
20 are going to hold their own radios that have this
21 special specification that we paid \$4,000 for because
22 this \$500 might make it transportation only, I mean,
23 that's what it continues to boil down to.

24 So I think transportation needs to move into
25 the rest of the world with technology because everything

1 that gives you volume gives you a lot of smart brains,
2 interest of everybody.

3 Multipurpose devices are the future. I think
4 the same thing for roadside infrastructure, the sensors.
5 Anything that we can make that's multipurpose,
6 multisectorial, then we get interest, which is why the
7 open radio is interesting, open devices are interesting.
8 Open data, we find that the data is being used by
9 different people in different sectors. That's when it
10 starts getting leveraged.

11 MR. DENARO: I'm in a little different place
12 than you. I don't agree with software-defined radio. I
13 think it's a wonderful solution. I just don't believe
14 it's going to be useful and affordable in a short enough
15 time here. I'm in an opposite place.

16 I think the yellow side of your network is
17 already done. It's right here. It is the phone, so
18 that's what I heard. DSRC is on the safety side. This
19 is what's on there. My market research sometimes is
20 looking at what my kids do. They do everything on this
21 thing and in their car.

22 So I'm thinking that wave is already started,
23 and that's where you're going to end up on your yellow
24 side because of all this for now. Some named
25 software-defined radio will come along and maybe there

1 will be other drivers, but for now it's going to be
2 this.

3 MS. CHASE: Bob, 25 years to turn the fleet
4 over for the United States. So if we're waiting for
5 DSRC to be implemented and brand-new cars as they come
6 off the same 25 years, are you really telling me that
7 software science, to you, is not going to happen within
8 25 years?

9 MR. DENARO: That's a different subject. I'm
10 talking about the yellow side. Consumer apps are going
11 to be on the cell phone right now.

12 Jim?

13 MR. VONDALE: I was going to say I agree with
14 you. I also would just add that I think the safety
15 benefits if we're successful on the safety side are so
16 profound that we can't afford not to proceed in that
17 area.

18 MR. TOTH: But she's saying you can proceed if
19 you use other technologies.

20 MR. VONDALE: I thought I heard her say that
21 she was very negative about DSRC. My point is I think
22 they're two different things. They're different
23 purposes. The DSRC may provide benefits on the yellow
24 side; it may not.

25 Clearly the intent is to provide the benefits

1 on the safety side, and I think the safety benefits if
2 we're successful are so amazing that we have to proceed
3 on the safety side with the path we're going. And I
4 agree with Bob that on the yellow side most of that, not
5 all of it, is going to be provided by technology that's
6 largely already here.

7 MR. TOTH: Am I misunderstanding something,
8 though, or do I hear you saying that there's other ways
9 to get the safety benefits without DSRC?

10 MS. CHASE: Until right now, I think there
11 aren't other ways to get hard safety things because it
12 takes control of the car, and you're not going to do
13 that with other things. However, as I say those words,
14 I said to Peter, the one that came out and all you guys
15 read, "How about Google's car, the two of them that
16 drove around untouched?" They didn't use DSRC. There's
17 no roadside infrastructure. Have you looked into that
18 and thought, could we get this hard safety with whatever
19 it is that they're doing? I have no idea.

20 MS. BRIGGS: The Google cars were actually --
21 actually, you're welcome to jump in here, too -- based
22 on the models that were developed for the DARPA
23 challenge, which was all autonomous sensors all around
24 the vehicle. So while they were able to do that, it
25 requires millions of dollars' worth of sensors on a

1 vehicle to do that. And what we're saying is that
2 eventually for --

3 MR. DROBOT: No, no, no. You're missing -- I
4 think the communication link for those have nothing to
5 do with the sensor industry story.

6 MS. BRIGGS: But to keep the cars from
7 crashing, you had sensors all around the vehicle.
8 That's what the purpose of the cars was. So what we're
9 trying to do is take a small chip, a Wi-Fi chip
10 basically, which is in mass production for \$15, and have
11 that on the vehicle along with software to do the same
12 thing that billions of dollars' worth of sensors could
13 do today.

14 MS. CHASE: At the first of these meetings, one
15 of the research -- one of the points in the handout was
16 that you were going to look and see can DSRC be deployed
17 without a trillion dollars' worth of roadside
18 infrastructure built. I want to know, have you had any
19 results about whether -- how DSRC works without the
20 large infrastructure requirement?

21 MR. DENARO: The last time, it applied to the
22 first deployment of V2V, so there's no infrastructure,
23 or very little infrastructure.

24 MS. CHASE: Which V?

25 MR. DENARO: V to another V that has a system.

1 MS. BRIGGS: NHTSA has just produced a report,
2 that's available on our website, that looks at the
3 crashes that could be addressed through V2V alone versus
4 crash scenarios that could be addressed through V2I, and
5 it's pretty profound. It talks about the number of
6 crashes -- percentage of crash scenarios of unimpaired
7 drivers that could be addressed for V2V. I don't
8 remember the exact number, but it was almost 80 percent
9 for just V2V.

10 Now, the challenge is you don't need roadside
11 sensors for V2V alone. However, you do need security,
12 and you have to figure out some way to do security to
13 make sure that the system is secure and people can't
14 hack into it and provide false information into the
15 system. And that's where you may need some
16 infrastructure of some type.

17 We don't know how effective the technology will
18 be. That's why we're doing this research. We're just
19 saying that we believe V2V can do a lot, but you still
20 need something for security to make sure that the system
21 is secure.

22 MR. DENARO: If I can suggest, I want to move
23 to the next question here as we're going through this
24 list here. We'll try to get all the comments in before
25 5:00. Does the program leverage advances and

1 investments being made in other sectors of the economy?

2 Peter?

3 MR. KISSINGER: I think we're back to Joe's

4 suggestion or whoever suggested having a White House

5 meeting with the chief technical officer and ask that

6 question, the private sector, that question. I think,

7 from my perspective, no, I don't think we are nearly

8 taking advantage of private and public collaboration.

9 In this era, when it's harder to get more public

10 resources, I mean, in Washington, you're not talking

11 about increasing anything. You're talking about cutting

12 everything. Now more than ever, I think we need to

13 figure out how we can work more closely together.

14 MR. SUSSMAN: Is this another way of phrasing,

15 Adam, Robin's point about not having unique networks for

16 transportation, rather having transportation looking

17 into networks used for other purposes?

18 MR. DROBOT: Let me ask the following question:

19 There is a national budget that goes to research

20 organizations to deal with communication sometimes

21 called NITRD. It's a White House agency. It oversees

22 and coordinates the budget of something like 2.3

23 billion bucks. Has this program taken advantage and

24 been in front of NITRD to ensure that you are taking

25 advantage of their other investments?

1 MR. AUGUSTINE: No.

2 MR. DROBOT: So, again, you're doing this just
3 in DSRC. Because it's transportation, it seems to me to
4 be wrong.

5 MR. BELCHER: One thing that Valerie mentioned
6 before that I think is worth at least raising is that
7 it's not nearly as narrow as you suggest, Adam. They do
8 have at least one technology scanning project where
9 they're reaching out to the national labs and the
10 defense department and other parts of industry to see
11 where the technology -- where they can tap into other
12 technologies that have been developed and where the
13 technology is going.

14 MR. DROBOT: What I'm suggesting is the
15 following: It's one thing to tap into it and say "I
16 will now take this technology into DSRC and do my own
17 project on it." It's another to make sure that the hard
18 questions to be answered and the components that you
19 will need for your system, if they can be developed by
20 others, let them do that. You can motivate others to do
21 some of your work and leverage it. I don't see that as
22 being part of the program.

23 MR. CRONIN: I would agree, but in our areas we
24 are doing, we have recognized that the Department of
25 Energy is charged with looking at the electrification of

1 the vehicle fleets.

2 MR. DROBOT: They asked for a bigger -- they
3 asked for a bigger budget in your area than you're
4 spending currently.

5 MR. CRONIN: So we've been talking with them.
6 One of the things we understand is what they're doing
7 related to security of information is very similar to
8 things we want to do, so we have actually -- we have had
9 several discussion with them about that.

10 MS. BRIGGS: Certainly where we know of groups
11 we should reach out to, we are. If you have certain
12 groups you'd like us to reach out to, we would be happy
13 to entertain doing that. Let's make a list.

14 MR. VONDALE: I just think we're back to the
15 question I raised earlier, which is: Is this
16 committee's job to decide have you gone far enough? I
17 think it's pretty clear from what I know about the
18 program and what you've said, you are leveraging
19 advances in investments to the extent that you have
20 defined the program and you've reached out to people you
21 know.

22 So the question I keep asking is: Is it this
23 committee's job to keep second-guessing, or are we more
24 in the realm of understanding -- trying to understand
25 better what you're doing, what your program involves,

1 how much you've reached out and some suggestions.

2 But I guess I'm kind of back to that question
3 we had earlier: How far are we supposed to go in
4 pushing you and changing your mind about the direction
5 you're headed.

6 MR. SUSSMAN: Well, I commended Jim at the
7 break this afternoon catalyzing the question in the way
8 he did. That's not to say I agree with the side of the
9 question he comes down on. I would say, speaking in at
10 least general terms, that the role of this committee is
11 to develop some normative standards against which to
12 judge the ITS program and JPO and then decide whether
13 they met it. That would be my view.

14 It isn't simply to say, well, we accept what
15 they have set for themselves as a goal and now let's see
16 if they met it. I think we can go further than that in
17 terms of establishing what their goals should have been
18 and have they met those.

19 MR. VONDALE: I guess my view is I think we
20 have to accept the goal. The question is -- it's our
21 job to help them meet the goal that they have set and
22 offer suggestions in ways that they can reach their goal
23 in the most efficient and effective way. I guess that's
24 sort of what I see the difference is of our opinions.

25 MR. DENARO: I think that's what we'll come

1 back to tomorrow, in tomorrow's session.

2 Let me just in the interest of time move on to
3 the third question, environment in which non-highway
4 applications can flourish, even including pedestrians.

5 I did some see some pedestrians walking on some of your
6 charts, and I think they were carrying cell phones. Do
7 we believe that the system is accommodating non-highway
8 applications?

9 MS. CHASE: Inasmuch as you work to improve the
10 data environment, I think that's a positive thing for
11 every type of modality.

12 MR. DENARO: How does that work in deployment,
13 by the way? I agree with Robin. It's a really good
14 thing, to create a data environment, but how do you
15 envision that happening? Is there a server in each
16 city, then, collecting its data? You guys aren't going
17 to Minnesota for them. How does it physically happen?

18 MR. AUGUSTINE: I'm not sure we have an answer
19 for that right now. The way I would say it is I wish we
20 would have TiVo'd the morning panel session and get back
21 to the point where I guess the question was asked by
22 Adam, what about the naming convention. You may want to
23 think more clearly about the way you and one transit
24 agency or one highway or one MPO or one MPC think about
25 "Well, let's just call it this because that works for us

1 now."

2 And you think what is the broader community.

3 Should we have followed through on that a little bit
4 more? I think we're trying to think through that. How
5 would all of these data sets -- we don't want 50 states
6 and 30 regions all doing that same work, and someone
7 will say, "Well, I'm a transit agency, and I recommend
8 the MPOs and MPCs that look at this broader regional
9 multimodal approach," to say, "Well, let's look at the
10 light rail. Let's look at the highway data. Let's look
11 at all these data sets and see what we can do." We said
12 that's really leaning-edge group.

13 We think this area is probably one of the
14 national leaders in that area. We'd like to do that for
15 the rest of the world and bring down the costs of
16 thinking through what does architecture need to look
17 like, what is the right naming convention, how would
18 this be interoperable nationwide, not just in the Bay
19 Area, not just in the Northwest or the Northeast, but
20 nationwide, so you can roll it out in all 50 states. So
21 sort of think through that.

22 Think the answer is we don't know how that
23 would be implemented, but let's at least figure out if
24 we can come up with an architecture that makes sense,
25 some standards that would be interoperable and think

1 through it for the nation and maybe do, you know, what
2 we normally do, is model deployments. We say, "Okay.
3 We've thought it through enough. Let's field test it in
4 one or two locations and see if we make sense in
5 reality."

6 MR. DENARO: That's where I was heading. Let
7 me just drill a little deeper on that. You're not a
8 standards organizations, but you did say a necessary
9 element of achieving that would be some standardization
10 of data, so is this back to JPO as leadership? You got
11 to get a standards organization working on that part of
12 it? Is that how it works?

13 MR. AUGUSTINE: Well, we do have a standards
14 architecture component on the program, so several
15 millions dollars does go into that, working with the
16 SDOs and industry to develop standards, and as Rob said,
17 we are branching that out internationally as well.

18 MR. VALDES: That's also where the modes come
19 in. We do work with standards-setting organizations.
20 We work with AASHTO, for example, for our industry. We
21 don't want 600 transit agencies developing their own
22 architectures, their own structures. So with us --
23 we and JPO working through us, we're going to work with
24 our contingencies, if you will, to develop the structure
25 through which that's defined.

MR. SUSSMAN: Tell her who you are.

1 MR. VALDES: Vince Valdes with FDA.

2 MR. AUGUSTINE: In closing on that, I think

3

4 part of our standards program is going to have to get

5 more heavily involved in some of the commercial

6 standards. Because when you're talking about Apple apps

7 and iPhone apps and all these other things, for the

8 mobility, we agree with you. We think the cellphone is

9 a pretty good platform, which, for the next couple of

10 years, will probably be what's used. We have to be more

11 involved in that area.

12 MR. DENARO: That's a huge goal, and I applaud

13 it. Data standards would be an enormous contribution of

14 this for the country. I would think about three years

15 after the first standards are published, you'd be on

16 version 87.3. They're going to evolve rapidly, because as

17 these applications show up, you're going to find all

18 kinds of problems with your data standards, and it's

19 going to have to evolve. So that sounds like a

20 sustained project on the part of the DSRC.

21 MR. DROBOT: There is a large research

22 component that goes into sort of the precursors before

23 you actually get to a standards product. That has a

24 deep technology to it. I think that's one of the things

25 JPO needs to follow.

1 MR. BERTINI: Just to go back to the final
2 question about non-highway applications, I think you
3 actually mean non-auto applications, and I think the
4 real beauty, at least on the act of safety applications,
5 is the non-auto modes, commercial vehicles and transit,
6 are really potential early adopters because they're
7 confined environments, more easily managed.

8 MR. VALDES: Fleet applications.

9 MR. BELCHER: Fleet applications. You can
10 really accomplish a lot that way. I do think that the
11 research program if it does that is really designed to
12 accommodate that.

13 MR. DENARO: I think we're getting close to our
14 closing time. I do want to keep us on schedule. My
15 take here is I think we learned a lot. Thank you very
16 much for the presentation, the additional color and
17 details you gave on that, because obviously there's a
18 lot of iceberg under that water beyond just the
19 presentation you gave. There's a lot going on. Thanks
20 to JPO for that information.

21 In terms of the committee, I wouldn't declare a
22 victory in terms of a consensus. I don't think we're
23 completely there. But I did think we nudged a little
24 bit in a direction of understanding where you are and
25 understanding where this might play. I think we've got

1 more work to do as a committee to come up with
2 recommendations based on that. I think we did make some
3 progress. Also thanks to the committee for all your
4 input and everyone who participated.

5 MR. SUSSMAN: Thank you.

6 (Whereupon, the proceedings were concluded at
7 4:58 p.m.)

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DAY TWO - JANUARY 7, 2011

1 MR. SUSSMAN: I hope everybody enjoyed dinner
2 last night. I certainly did. And Thank you, Ann, for
3 arranging that for us. It was an excellent restaurant.
4 I think everybody had a good time.

5 What we'll do is we'll begin with the agenda as
6 specified with John presenting the discussion on
7 multimodalism, but I discussed with him being able to
8 wind up that session by 9:30 at the latest. We'll take
9 our break, and that should leave us ample time for a
10 discussion of where from here.

11 I've worked on some ideas, and Bob and I have
12 talked. I think we certainly should end up by noon with
13 a good way forward for the committee in its further
14 deliberations. I think we'll be better informed when we
15 hear what John has to say, so I'll invite you to the
16 other end of the table and we'll begin.

17 MR. AUGUSTINE: Good morning, everybody.
18 Thanks for giving us the opportunity to talk a little
19 bit about one of the areas of interest on the program,
20 and that is the multimodal aspect of the ITS research.
21 So what we'd like to do today is just go through some of
22 the information and really respond to the comments that
23 we received from the advisory committee regarding the
24 nature of the research and the investment allocation for
25 the different pieces.

1 I guess what I would do is I'd like to start by
2 saying the intent of this is not to turn everyone into a
3 multimodal champion, but it's really just to explain to
4 what degree the program is multimodal and how we define
5 it and some of the different aspects. So we'd like this
6 to be a little more detailed.

7 And I guess the other comment we heard was that
8 in terms of the budget information, it was very hard to
9 see what those categories meant and what was the
10 underlying research in those categories and how it was
11 being spent. So we tried to break it down in a little
12 more detail. We're going to answer some questions about
13 where the investment is going.

14 MR. BERTINI: John, to clarify, I think you
15 heard that -- that was my comment.

16 MR. AUGUSTINE: And that's a great point. We
17 looked at that, and some of the --

18 MR. SUSSMAN: If you can't understand it, the
19 rest of us mere mortals --

20 MR. BERTINI: My point.

21 MR. AUGUSTINE: And Rob raises an excellent
22 point. As we evolved the research, some of the naming,
23 the nomenclature of how we would describe the research
24 evolved from when we first arrived. One of the examples
25 was the mode-specific research, which, in the end if all

1 turned into multimodal research, we'd cut the name.

2 Rob's point was "what does that mean?" Well, all right,

3 Rob. Good point. If you're confused, others may be,
4 too. So let's go through and try and give a little more
5 detail.

6 This is really the comment that we built this
7 presentation around, and the first sentence I think we
8 totally agree with. The committee believes that the ITS
9 program must be fundamentally multimodal in its
10 approach. So amen to that. So what we'd like to do is
11 go through how we believe the program is multimodal. A
12 couple points. Rob mentioned a couple of these
13 yesterday.

14 First of all, the way that the ITS program and
15 the strategy and the investment allocation developed is
16 multimodal to begin with. So as the ITS program, we're
17 housed in RITA, but we really work with all of the
18 surface modes in what Rob referred to yesterday as our
19 strategic planning group, the SPG.

20 The SPG is comprised of members such as Vince
21 at the associate-administrator level all across the
22 modes, and then there's the administrators at the
23 Management Council. So everything we do in terms of our
24 strategic plan, our investment allocations per year go
25 through these committees to have the multimodal

1 perspectives woven through it. So we turned that into
2 sort of a management and governance as well as the
3 planning.

4 The goals of the research plan are primarily in
5 support of safety, mobility and environmental, but in
6 all of those cases, we believe that those goals should
7 apply to all surface modes. And we are probably least
8 representative in the realm of maritime, but thanks to
9 Rob and Peter for really trying to push some
10 coordination with those modes we haven't worked with in
11 the past. They are included in this strategic plan.

12 The other thing is the interaction with the
13 stakeholders. We developed a plan in draft. We
14 communicated with the industry, with our -- all of the
15 stakeholders. I think we have -- Valerie, correct me if
16 I'm wrong -- up to 70 or 80 different stakeholder groups
17 that we communicate with on a normal basis through
18 Twitter and RSS feeds and communications and Web Blast.
19 We want to let everyone know that the genesis of this
20 plan was vetted, so we'll get it into a little bit
21 more.

22 One of the comments, I think, from the original
23 advisory committee meeting was the -- when you say
24 "multimodal," that doesn't always speak clearly as what
25 we mean by that. And our strategic plan clearly calls

1 out for efficiency across all modes of transportation.

2 For the surface side, our legislation does not give us
3 the authority to work on the aviation side, so we do not
4 work with the FAA, but we do collaborate with them and
5 we will have research projects with FAA. We do
6 certainly coordinate with them on our next program, and
7 we do communicate where possible.

8 But really the focus of our research through
9 our authorization and through our strategic plan is on
10 the surface side. And the point here is this plan was
11 also developed with the full participation of our modal
12 partners in the building as well as our external
13 stakeholders.

14 So just to talk a little bit about the
15 management and the governance, sometimes inside USDOT,
16 we become a little bit insular when we say what is a
17 mode. And I think one of the comments that we heard
18 was, well, while you may work with NHTSA and Motor
19 Carrier and Federal Highway and FTA on the bus side,
20 those are all modes that operate on the roadway, so that
21 is a highway-centric program. So while that certainly
22 is true for the transportation that does occur on the
23 roadways, our work with FTA does include the light rail.

24 Our work with maritime does include container
25 movement through the ports on ships and the intermodal

1 connectors on how the ports and how the containers go
2 from rail or highway or whatever choice is made. The
3 motor carrier work does look at the freight flows and
4 how do we make that more efficient through cross-border
5 inspections at either the northern and southern borders.

6 So this chart gives you a little bit of an
7 illustration of the modes that we work with in USDOT.
8 And in each of these cases, there's a sublevel of detail
9 on how we're working with the modes and how the actual
10 research does cut across either different types of
11 transportation or whether it's looking at passenger,
12 freight, looking at light rail transit to bus transit.

13 So all of these aspects are covered, and this
14 does represent -- all the blue blocks are who are
15 represented on the strategic planning group and their
16 administrators at the financial council level.

17 Again, this was a chart that Rob developed
18 because he was even having a hard time keeping track of
19 who was who in the building and who we worked with. We
20 thought it would be nice to share at least with
21 committee for folks that don't work with USDOT on a
22 daily basis.

23 MR. BERTINI: May I make a quick comment? I
24 think it's important to note that to be on it, the funds
25 of DOT for research and other things flow through these

1 boxes. So the ITS program is really at the moment the
2 one program that has a cross-modal decision-making
3 structure, and that is not predestined by mode. So
4 currently all other research, as far as I can imagine,
5 does flow through a specific lower box. So this ITS
6 program is unique. We would -- some of us would like to
7 see research programs in the future become more
8 cross-modal.

9 I just want to mention that Deputy Secretary
10 John Porcari is probably one of the nation's leading
11 champions for working across modal boundaries and
12 breaking down stovepipes. He chairs the Management
13 Council. This is something that we talk with him about
14 all the time, how to make decisions about allocating
15 funds and research in particular in a modally agnostic
16 way, which is a phrase that we use all the time, modally
17 agnostic.

18 It's worth mentioning that he as the chair of
19 the Management Council is a champion for that and that
20 our program within the DOT research community is unique
21 in that way.

22 MR. SUSSMAN: So let me understand as long as
23 we're on this chart and Rob has further commented on it.
24 I'm not sure I see the Management Council on that chart.
25 What I see on this chart, I could imagine what you could

1 have been up there saying with this chart is this
2 demonstrates the silos within which DOT operates.
3 That's what that chart says to me.

4 So if there is any cross-cutting, I suggest
5 that you graphically represent it in making
6 presentations of this sort. The message -- the words in
7 your mouth and the message of the chart are 180 out of
8 phase, as near as I can tell.

9 MR. AUGUSTINE: It's a fair point. I don't
10 think we took it to the next level to show the
11 Management Council, so we will provide that for you.
12 But Rob's point is right on. The Deputy Secretary
13 chairs the Management Council. All of those blue boxes
14 are representatives, including Undersecretary for
15 Policy.

16 So when we go forward, I think we have our
17 Management Council scheduled for February 14th for the
18 FY 11 budget. All of those members are represented at
19 the administrator level or the secretary level chaired
20 by the Deputy Secretary. So we can show you a little
21 bit more about how that works. There's a charter for
22 how the group operates, both the Management Council and
23 the SPG.

24 I think maybe we'll take an action to send that
25 to you, Joe and the committee, to sort of get to the

1 point of I don't see how that works on this chart. We
2 can give you some more details.

3 MR. SUSSMAN: That would be helpful --

4 MR. AUGUSTINE: We can do that.

5 MR. SUSSMAN: -- to make direct sense of that.

6 Thank you.

7 MR. AUGUSTINE: So I think this is the chart
8 that originally garnered, "Oh, that's nice, but we have
9 no idea what that means. Those are nice numbers, but
10 it's very hard to tell where the different research
11 projects lie in that." So we're going to go through a
12 couple of different slides to break these down into a
13 little bit lower level of detail, but this is the 2010
14 numbers.

15 I would say that the charts that we're going to
16 show today have the correct numbers. I think in the
17 read-ahead there was an issue with rounding errors, do
18 we use the 2010 actual, the 2010 actual plus carryover.
19 So the charts today are going to be the right ones. The
20 ones we posted have a little bit of a difference.

21 The first subgrouping under this ITS multimodal
22 applications is that 30 percent of the budget. The
23 other large pie section you're going to see there is the
24 legacy and targeted ITS research at 33.

25 And I think it was nice -- yesterday we were

1 going to get into the -- a couple of the legacy research
2 projects that we have are, in fact, part of the
3 congestion issue of UPA. A lot of people refer to it as
4 the urban partnership agreement, and that was what Carol
5 was mentioning, that some of the Smart Parking and the
6 parking availability and the parking pricing information
7 was provided through our participation in the urban
8 partnership agreement with the different sites. And the
9 Bay Area is one of the urban partners.

10 So when we try and discuss the breadth of the
11 ITS research, it's very hard to get into all the
12 details, but it was nice, at least yesterday, to start
13 to hear some of the pieces that are out there.

14 And you say what is legacy research. It was
15 what was mentioned yesterday, that congestion
16 initiative, the other things we've done several years
17 ago that are wrapping up that are still in the community
18 that require some multiyear funding.

19 And then here's the mode-sponsored multimodal
20 research that gets to the research that the modes -- the
21 individual modes of transportation within USDOT. They
22 crafted up research proposals. They provided resources
23 in terms of either in some cases it's about personnel,
24 some cases matching funds, some cases it's test bed
25 resources to institute ITS research with us.

1 Again, this was trying to show that the
2 decision making on all these funds is not dictated out
3 of JPO. It's really a coordination across the
4 department as well.

5 MR. SUSSMAN: If you could back up again on
6 that one. The concept that I have at least trouble
7 getting my arms around is the relationship between what
8 one might call the ITS JPO program and the entire DOT
9 ITS program. So can you help us understand how that
10 works and whether what we've been talking about is
11 simply that part of the ITS program controlled by JPO?
12 And perhaps there's another whole layer superimposed on
13 it for the FHWA ITS program, the FDA ITS program and so
14 forth.

15 MR. AUGUSTINE: That's a good point. Thank you
16 for reminding me. So the ITS joint program office --
17 and we were having discussion with Valerie and some
18 other folks right before the meeting started. I think a
19 lot of people say, "Well, this JPO monolithic huge
20 program that dictates how the ITS is spent."

21 We're an office of at this point 17 people, and
22 we have three team leads and Brian has four folks plus a
23 vacancy. Valerie has a couple folks and James Pol has a
24 couple of folks plus myself and Rob and a handful of
25 other people in the department and the program. So we

1 do not have physically the capability to execute a
2 hundred million dollars of research with just our folks.
3 We have to rely on our modal partners.

4 We cannot execute transit research without FTA.
5 We cannot do any type of vehicle safety work without
6 involving NHTSA and the trucking with the highway
7 freight and the Federal Motor Carrier Safety
8 Administration.

9 So the easy answer to your question, Joe, is
10 the ITS budget that we're talking about here and the
11 funds we get in our program, which you provide advice
12 to, represents probably 80 percent or a large majority,
13 maybe 90 percent, of the entire ITS funds that are spent
14 in the department. Without the funds from the JPO,
15 let's say, to partner with Vince's group, the FTA, they
16 would have -- I can't speak for you, Vince, but --

17 MR. VALDES: We have maybe four or five people
18 who are dedicated to working on ITS, and, as John is
19 saying, 90 percent of funds that flow to the ITS program
20 run across DOT to flow through the JPO. We might add a
21 little bit of money here or there to buttress
22 implementation or deployment, but the bulk of the money
23 is flowing through JPO.

24 MR. AUGUSTINE: And I think if we have the
25 other modes, they would be echoing the same thing. They

1 do -- there are times where they can leverage some of
2 their work to say, "Oh, we're going to do some kind of
3 deployment and there's an ITS component," and they have
4 a little bit of funds to put there. Without the ITS
5 budget, they would really do very little in the ITS
6 realm.

7 MR. VALDES: A good example of that, if I
8 might, John, is that we're working with FRA on PTC
9 issues and with OST. In fact, we put in a million
10 dollars of our own money.

11 MR. BERTINI: You owe a dollar for every
12 acronym.

13 MR. VALDES: We're working on positive train
14 control with the Office of the Secretary, and I should
15 know this because I have my own advisory committee as
16 well, but they're used to our acronyms. And we're
17 working with FRA and the Office of the Secretary in
18 order to define how that program is going to go forward.

19 MS. CHASE: When you say that there's that 80
20 percent of -- 80 to 90 percent of funding flows through
21 JPO, as I understand it -- forgive me for being kind of
22 presumptuous -- you actually don't have control of that
23 80 to 90 percent. We couldn't say tomorrow we want to
24 change our minds. We see that it's a big legacy group
25 that's committed. But if you look rest of that

1 two-thirds, do you actually have in your power to
2 reallocate that money?

3 MR. AUGUSTINE: Well, we could, but I think
4 what we'd end up doing -- I mean, we would have to be
5 honest about it. With 18 people, we cannot administer
6 all the contracts and the oversight and the follow-up
7 and the outreach with that dollar amount. So we are --
8 we really have no choice.

9 And that's the way the program was developed
10 when Congress created safety modes and said, "Well, we
11 could have each of the modes doing their own ITS piece,
12 and we can just embed the dollars in the modes and let
13 them manage it, or we can devise a small office that
14 is -- the purpose -- its mission is to be this joint
15 program to involve all the modes. We put a lot of
16 dollars in there but force them to work with the
17 department in looking at sort of cross-cutting --
18 getting away from the modal silos." You're in a transit
19 area, you're going to look at a transit ITS unit.
20 You're in motor carrier, you're going to look at sort of
21 freight and trucking ITS.

22 But putting in an office that cuts across
23 departments, you say, "Well, we know the freight office
24 and highway is doing that. We know Motor Carrier is
25 doing that. We know transit is doing that. Why don't

1 we create a project that sort of includes everyone?"

2 And I think that's the way we had to shape the budget.

3 I think we do have through our charter -- I
4 think Joe made a good point on the Management Council.

5 I think it would be helpful to see the SPG charter and
6 the national council charter that dictates how do we get
7 from research proposal to approved spend plan.

8 I would say it this way, Robin: We probably
9 could take the money and say, "We're just going to do
10 that." What would happen is it would fail, the modes.
11 "I didn't know what you were doing. I'm not going to
12 help you." We would upset a lot of people. We would
13 probably be unsuccessful. And we would probably violate
14 the Management Council charter, and then the powers that
15 be would say, "This program is fundamentally not doing
16 what it was supposed to be doing."

17 MS. CHASE: Who proposes and who says yes? Do
18 the people in those modes say, "Oh, I've got this great
19 project. JPO's got the money. JPO, I need 60 million
20 to do X," and you say okay?

21 MR. AUGUSTINE: Sometimes it's bottom up and
22 sometimes it's top down. In the case of -- the majority
23 of the work is bottoms up. So we'd work with the modes
24 and say, "What are you doing? How many resources? What
25 kind of creative things can we do together? Here is our

1 strategic focus."

2 There's some proposals that either come
3 directly from the modes. Sometimes it's the research
4 staff and the JPO with the modal partners coming up with
5 a good plan. Sometimes, in the case of the congestion
6 initiative, that was a secretarial -- off the Secretary
7 party. "We're going to do a congestion initiative.
8 Let's figure out what kind of research we can do?"

9 And so they came up and said, "We want to
10 allocate a large portion. How would we do that?" We
11 worked with the modal partners. "Okay. We're going to
12 do congestion reduction. We can do parking. We can do
13 variable tolling." How would we do that? So it's not
14 all or one. It's a combination of those.

15 I think someone had a comment.

16 MR. CRONIN: I would just say that in this
17 program, in our strategic plan, we started with a
18 collaborative working with our strategic planning group
19 to lay out a vision. So we started at a point of
20 collaboration. And so there is the ability as the
21 executives come in and want to change a direction or do
22 something, we can do that. It works effectively if we
23 do it in a collaborative way. If we come out and say,
24 "We want you to do this," that usually gets done, but no
25 one likes it.

1 MR. SUSSMAN: Remind us who is on the strategic
2 planning group.

3 MR. AUGUSTINE: Everybody on the chart in
4 blue -- from this chart. Go back to that. Those at the
5 SPG and the Management Council, the organizations in
6 blue are represented -- RITA is in green there,
7 slightly, if there's a difference -- it's just the level
8 of participation. So the SPG level, that includes the
9 JPO director, in this case that would be Rob plus Vince
10 Valdes, the associate-administrator level across all of
11 the modes in blue.

12 MR. BERTINI: Does everyone know what that
13 means, the associate-administrator level?

14 MR. AUGUSTINE: So the senior-executive
15 level -- so these are the senior career members in the
16 department who work directly for the political
17 appointees. And Rob is in a situation where he's having
18 two hats. He's a political appointee at the senior
19 level but is also the acting director in Shelley's
20 absence. But if Shelley were here, it would be Shelley
21 plus Vince plus Jeff Lindley in Highway.

22 MR. VALDES: Mike Trenikoff.

23 MR. AUGUSTINE: Right. Michael Trenikoff.

24 MR. SUSSMAN: Administrations, if I understand
25 it, have multiple associate administrators.

1 MR. AUGUSTINE: Correct.

2 MR. SUSSMAN: Are you talking, then, about a
3 associative administrator for research --

4 MR. AUGUSTINE: Correct.

5 MR. SUSSMAN: -- or a particular associate
6 administrator who is on the --

7 MR. AUGUSTINE: Strategic planning group, yes.

8 So you have the career executives working with
9 their staff to say what could we do, what could we
10 execute, do we have enough resources, how will we do it,
11 does that meet our needs, does that meet the stakeholder
12 needs.

13 You know, the JPO, we have Brian and a couple
14 of others who have -- there are some transit folks who
15 know the community, but really we don't devise transit
16 research. We look to Vince and his team to say, "Vince,
17 what should we be doing in transit? What can we do
18 together?" We collaboratively developed these proposals
19 on what's going to meet the need of what can we really
20 execute.

21 The other thing is we utilize -- each of these
22 modal administrations have their own authorities. So
23 the FTA grant authority to transit organizations. If we
24 partner with Vince and his team, we can establish an
25 agreement to use his ability to get to specific modal or

1 transit organizations to do modal deployment.

2 We don't really have that authority in the ITS
3 program. We do if we partner with Vince and use FTA,
4 similar with NHTSA, JPO does not have any rule-making
5 authority. NHTSA does. Motor Carrier does. We would
6 partner with them to execute research that they're going
7 into.

8 MR. SUSSMAN: I think I have the numbers. So
9 the SPG has associate administrators for research from
10 all the boxes -- all the blue-shaded boxes. And the
11 Management Council are the administrators of the modal
12 administrations --

13 MR. AUGUSTINE: Right. So that would be Peter
14 Appel.

15 MR. SUSSMAN: -- coming to the meetings, the
16 purpose of which is to discuss the ITS program.

17 MR. AUGUSTINE: So as we develop the research
18 proposal and the FY 11 spend plan, we work with all the
19 modes through, you know, Vince's level, across all these
20 blue boxes, and we work collaboratively with them to
21 figure out what we can do, both in time, in scope, in
22 resource.

23 And in the case where -- and this happens, and
24 I'll be blunt, sometimes there are disagreements. Vince
25 will go to his administrator and say, "Well, I don't

1 really like the way they're doing it, so we should have
2 more resources or less resources. We should be focusing
3 on different time lines." So we listen to that, and the
4 modal administrators will come to the table saying "This
5 doesn't necessarily meet our needs" or things changes.

6 In the case of the congestion initiative, we
7 had a plan laid out. They said, "This is a nice plan,
8 but we have a different plan for you. We're going to do
9 congestion reduction, so we want you to go back to the
10 drawing board and redevise some proposals that would
11 address that. So the Management Council comes to the
12 table with the full weight of the political-appointed
13 senior level at the department.

14 MR. SUSSMAN: I think I at least understand how
15 this structure works, and it's sometimes top down and
16 sometimes bottom up, and you reach some equilibrium in
17 which there is now a program. And these pie charts are
18 a representation of how resources in practice are
19 allocated within these programs.

20 MR. AUGUSTINE: Correct. And I would say that
21 80 to 90 percent of the proposals are bottom up.
22 They're organically driven, so the FTA administrator can
23 say, "Vince, does this meet your needs? Are we going to
24 be able to execute this? Does this make sense? Will
25 the stakeholders like this? Should we be changing it?"

1 Top down is very hard unless there's a very
2 clear goal. We want to focus on, you know, driver
3 distraction totally, and that's all we're going to do in
4 this area. And then usually they let us go back and
5 say, "Okay. We'll show you some options on how we can
6 meet that need."

7 MR. SUSSMAN: Steve has a comment.

8 MR. ALBERT: I'll make it quick. In that this
9 advisory board, at best, can tweak anything that's
10 within this plan and not make any wholesale changes. I
11 think it really kind of begs the question again, "What's
12 our role?" I think we need to let John get through his
13 presentation without going through all the details of
14 things and then kind of step back and say, "What can we
15 tweak, what can we do to support JPO, and what's the
16 role of this group?"

17 MR. SUSSMAN: I think that's an excellent
18 statement.

19 And, John, we will get through it. As I
20 indicated, we've got two, two and a half hours to
21 discuss exactly that question, on which there are many
22 --

23 MR. BERTINI: Too much coffee. Sorry.

24 There are three examples I can give about how
25 we've changed. We've added the sustainability element

1 based on the input of this committee. We've added the
2 Federal Railroad Administration piece. It took a while
3 because they had to come to the table. Peter Appel said
4 in June 2009, "We're adding rail and maritime," and so
5 it's really taken until now, until last month, December
6 2010, for FRA.

7 They have hired a new associate administrator
8 for research, John Tunna, at the table literally. The
9 Maritime Administration is also organized and at the
10 table. So those are three recent examples of changes
11 that occurred. So changes can be made.

12 MR. SUSSMAN: I take Steve's comments quite
13 seriously. I didn't mean to suggest otherwise. I think
14 we're here attempting to understand what our role can be
15 and, in fact, whether your conjecture is correct, all
16 they can do at this point is tweak. I'm not yet
17 convinced of that, but we'll soon see.

18 MR. KISSINGER: Well, I think we're looking at
19 2010 here. We're four into that. I'm presuming that
20 you have little discretion to make too many adjustments,
21 even though you may have the official appropriation.
22 And I presume your 2011 budget is probably already --

23 MR. BERTINI: We're in 2011, yeah. We're a
24 third of the way through.

25 MR. AUGUSTINE: It was just easier to show

1 here's how we did it for a full year that's water under
2 the bridge. This is the historical --

3 MR. KISSINGER: 2011, you've got very little
4 discretion, so what about 2012?

5 MR. AUGUSTINE: We're required to develop a new
6 program plan every two years, so we don't want to say
7 where's the five-year focus and the next two years is a
8 totally different flavor and focus. We don't want it to
9 be totally schizophrenic, but as the research evolves,
10 our goals can evolve.

11 And I think Rob is right on. Our old plan did
12 not have an environmental goal area, and we added that
13 as a specific reaction to the advice from this
14 committee. So if the committee were to say, "Well, we
15 see your safety mobility environmental goals and we
16 they're nice, but you're missing one or you're actually
17 too heavy in one, you should supporting one more so than
18 the others," that would go to the department and we
19 would evaluate that fully and actually report back to
20 Congress how we agree with that.

21 So I would not say that the role of this
22 committee is just to tweak. You can have major
23 recommendations, but the reality is it's a moving train.
24 So if you say this train is fully going in the wrong
25 direction, you have to wait for the next stop to

1 redirect, but that shouldn't limit you. If the
2 committee feels strongly that the path is wrong, you
3 have the authority to provide that recommendation.

4 MR. DROBOT: John, in the way the program has
5 come together, I think the value of having modes at the
6 table is that you end up with, I hope, technology
7 transition paths and that there's a catcher for the
8 research that's done in RITA.

9 I'd say the flip side of it is I think sort of
10 a necessity for RITA by itself to really establish a
11 brand, let's say, within the department of the time
12 scale of the problems you address. Because if you're
13 doing research and you're forced in to doing the hear
14 and now for the modes, you won't be doing anything that
15 has any horizon to it.

16 The question is who is. How do you see the
17 dynamics working out so RITA really has that balance of
18 the time scales of the problems it takes on.

19 MR. AUGUSTINE: Those are good comments.

20 I would say that we wrestle with that every
21 year. Essentially the program is an applied research
22 program. We're not doing, you know, basic research on
23 man and technology that may have the horizon in 20
24 years. We don't have the budget. We're not set up to
25 do that.

1 This is an applied research project, so we want
2 to look at, I think, sort of a five- to ten-year
3 horizontal. That's probably the rule of thumb. I don't
4 think it's written down anywhere. That's generally what
5 we look at.

6 The other thing we get with -- one of the, I
7 think, valid criticisms of the program is you spend all
8 this money on research. When do you get deployment, and
9 I think several of us talked about that last night.
10 Research has to have some deployment path. As you said,
11 the catcher is the research.

12 I think DOT was the one that really said we
13 need to get away from there's a research group and
14 there's an implementation group, there's an operation,
15 and research would go to its head and they'd go, "What
16 was this?" And they'd throw it on the floor.

17 So we definitely work with the --

18 MR. DROBOT: By the way, we call that the
19 valley of death.

20 MR. AUGUSTINE: We don't subscribe to that.

21 So that is the reason we're showing the
22 organizational chart and how we work with the modes,
23 because you're right on. We do not want to throw
24 something at FTA and say, "Your transit people will love
25 this. Trust me." "What are you talking about?" You

1 don't even know what we're doing here. The folks aren't
2 read into it and they haven't given you advice."

3 So we do fundamentally work with the groups.
4 We want to have a balance of some things that are --
5 this is deployment ready now. We need to get it to the
6 operational groups to deploy. There's nothing --
7 there's no barriers yet. We worked out the standards.
8 We've done the research. We do the check transfer, the
9 knowledge transfer to get it adopted, but we're not a
10 deployment agency. All these other groups are. That's
11 really the point of what we're saying.

12 We need to work with the modes because they're
13 the deployers, they're the adopters, they're the
14 regulators. IntelliDrive, the ITS, V2V, V2I is sort of
15 that five-year horizon. It's a little bit out there.
16 There's a couple of other things we're doing now that is
17 modal deployment today. So there's a mix.

18 MR. DROBOT: So would it be fair to then
19 characterize it the following way: You're sort of the
20 middle ground between basic research and its
21 application, and your fundamental role is to actually
22 prepare a technology in readiness for transition, in
23 readiness for deployment?

24 MR. AUGUSTINE: And do the necessary testing
25 that maybe one mode could not do all by themselves,

1 because each of these modal administrations has a
2 statutory authority. FAA is authorized to do aviation.
3 They're not authorized to do highways. Highway is
4 authorized to do highway and not transit.

5 So collectively we say, "Well, if we have the
6 technology that cuts across all these modes and they
7 would deploy it and adopt it and it was proven out and
8 tested that there was data there and they could really
9 look at it, they would deploy it." But each mode by
10 themselves doesn't really have the authority to take on
11 that role, so we would fill that gap.

12 MR. DROBOT: So the next question is: In terms
13 of the acceptance of the role that you have, how well do
14 the modes treat you and how much do you get whipsawed by
15 what they have to do in any given year, essentially,
16 since a lot of the budget is tied up in how they, in
17 fact, act.

18 MR. AUGUSTINE: And that is the design. That's
19 the design of the office. We are not resourced to
20 execute, but we have the resources to partner. We work
21 very cooperatively with the modes.

22 MR. DROBOT: In terms of making
23 recommendations, what could we do that would help you in
24 that role that you're having to struggle with today?

25 MR. AUGUSTINE: It's a good question. I have

1 to think about that. I can't think of anything off the
2 top of my head. I guess my honest reaction to that
3 point is you have to look at it both from the JPO
4 perspective and the modal perspective and then how we
5 work together.

6 I think Robin was getting to the point, well,
7 what if we were just to say, "You know what? This is
8 great, but we see an opportunity. We're going to seize
9 it and we're going to do it." The dynamic is we can't
10 do it alone. We need to work with a partner.

11 I think what you're addressing is what are the
12 barriers about the way you work. We do have to set up
13 an agreement. We do have to work through their staff.
14 You know, that's just the way we operate. So there's
15 pros and cons to that.

16 MR. SUSSMAN: I'm going to break in. I think
17 we ought to let John get through -- get through more of
18 his presentation. A lot of the issues that are being
19 raised at this point, I think, are issues that we'll get
20 to --

21 MR. AUGUSTINE: They're examples.

22 MR. SUSSMAN: -- in the closing session. Let's
23 try and get as much information.

24 MR. AUGUSTINE: I think this is good dialogue.
25 We're trying to help you understand how we do it.

1 MR. SUSSMAN: Why don't you go beyond the pie
2 charts and move into what you were before we derailed
3 you.

4 MR. AUGUSTINE: Each of these colored slides
5 starting on chart 9 and beyond give you a little more
6 detail in terms of when we say, "Well, what is this
7 multimodal application work? What is the application?"

8 And if this is the question from yesterday, well, we
9 have the safety work, the vehicle-to-vehicle and vehicle
10 infrastructure and the safety pilot, how much money is
11 going to that, versus these other sort of yellow boxes,
12 the real-time data capture and management, dynamic
13 mobility.

14 So you can see in this case for FY 10, we're
15 spending a little bit more on safety. That is more
16 expensive inherently. But we are looking at the yellow
17 sort of mobility and weather and environmental areas are
18 pretty much comparable.

19 The modes sponsor multimodal research, and this
20 is what the modes come to us with to say, "We believe
21 this is very relevant" -- gets to your point, Adam --
22 "What can we do now? We've got a need. We have the ITS
23 technology we can address the need. We've got the folks
24 in the modes that are working closely on this issue."

25 So this purple area you see, for example, the

1 freight, the border crossing E-screening is the
2 initiative where we said we should be using ITS
3 technology to improve the flow of freight across our
4 northern and southern borders.

5 So we're working -- and this actually has an
6 international -- we're working with Transport Canada on
7 this project as well as the highway freight office and
8 Motor Carrier to figure out how can we all work a little
9 bit -- you know, take the dollars we have, the
10 technology that is available and really do some projects
11 that prove this out.

12 So this is coming directly from the modes who
13 see a need and an opportunity and it fits in with our
14 mission. There's all these different examples.

15 MR. SUSSMAN: John, so these charts are not
16 quite the same as what's in our packet?

17 MR. AUGUSTINE: Correct. The charts I'm
18 showing you today are the correct ones. The charts in
19 the read-aheads have a couple of rounding errors, and
20 they were using FY 10 plus carryover. It was a mix.
21 These are correct.

22 MR. SUSSMAN: With these charts, the right-hand
23 column is going to add to a hundred percent?

24 MR. AUGUSTINE: They should. There's a couple
25 where you're going to see 4.1 depending on how you round

1 up.

2 MR. SUSSMAN: I'm not talking rounding error.
3 I'm talking on previous charts, they added 82 percent --

4 MR. AUGUSTINE: Right.

5 MR. SUSSMAN: -- which isn't a rounding error.

6 MR. AUGUSTINE: Right. Just so we know, these
7 charts should be correct, the ones we're looking at on
8 the screen.

9 MR. SWEATMAN: In this purple area, say,
10 something like active traffic management, is that kind
11 of the tip of the iceberg to what FHWA is doing? I
12 assume FHWA has large programs in that area. And I just
13 want to ask that question about -- I mean, I guess what
14 you're doing is doing some leveraging or assisting in
15 some way, that there's a bigger thing back there at
16 FHWA.

17 Can you give us some sense as to how that works
18 and what the magnitude of that is?

19 MR. AUGUSTINE: Right. So in this case, the
20 active traffic management project that we're listing
21 here is one that the Turner-Fairbank Highway Research
22 Center may have the facility there. They have resources
23 there. They don't have the physical dollars to say,
24 "Well, what if we did a real research project using our
25 facilities?" So that's a perfect example of where we do

1 leverage the other resources in the department.

2 We utilize their expertise in the actual
3 traffic management and signal optimization. How we
4 would use this ITS technology if it were, in fact, the
5 vehicle-to-vehicle and vehicle infrastructure messaging?
6 How would we use that in dynamically improving the
7 performance of the traffic flows?

8 So that, again, is something that's a few years
9 out, but if we don't work with the highway folks as
10 we're developing the rest of it, as an afterthought,
11 we'll miss an opportunity and it won't be inherently
12 integrated into the FHWA operations.

13 MR. SWEATMAN: Is that the totality of what
14 they're doing in that area, or do they have other
15 programs in all active traffic management?

16 MR. AUGUSTINE: They do have -- there's a
17 signal optimization group that's looking at that.
18 Largely that's talking about just retiming the traffic
19 signals. What we're talking about here is saying what
20 if we had this V2V and V2I data out there? How would
21 you then manage the traffic? Because you have so much
22 more data across arterials, and you have them places you
23 would never have. And they know you can't put a central
24 in every street corner; it's cost prohibitive and you
25 couldn't maintain it.

1 But if you had something that we're talking
2 about in terms of V2V and V2I, suddenly you would have
3 that data in all these different places, in parking
4 lots, on ramps. You wouldn't have to have the sensors
5 and the cameras. The data would be there, so that
6 totally changes the way you would think about managing
7 your operations from a data-centric standpoint in terms
8 of a sensor and monitoring standpoint.

9 But in terms of how much else is Highway doing
10 the active traffic management, Brian, did you have a
11 sense on how they're -- what is the extra work that may
12 be not represented?

13 MR. CRONIN: They don't really have money going
14 into it. They have a lot of staff and they have a lot
15 of resources and they have a lot of sort of operations
16 folks working the issue, coordinating the TRB
17 committees, planning out how they move forward. There
18 was some urban partnership program money that ended up
19 going, but they don't have a \$20 million active traffic
20 management research program. So we are providing the
21 resources to help plan out, define it, but they're
22 providing all the expertise.

23 MR. SUSSMAN: So Peter's tip of the iceberg
24 metaphor is wrong, is what I'm hearing. That is,
25 icebergs are 90 percent below the water level. You said

1 80 percent of the ITS work in the department is JPO, so
2 it's an upside-down iceberg.

3 MR. AUGUSTINE: Right. There's a little tip
4 underwater.

5 MR. SUSSMAN: Fair enough. We understand.

6 MR. AUGUSTINE: So going to the other legacy
7 and targeted ITS research, we do have an I-95 corridor
8 coalition set aside in our authorization, which, I
9 think, equated to about \$6 million per year. We have an
10 integrated corporate management project that Brian led,
11 and that does include FTA as well as FHWA in linking all
12 of the resources in a corridor to try and garner more
13 efficiency.

14 We have the Mobility Services for All
15 Americans, MSAA. That's primarily a paratransit type of
16 project to get better coordination among all the human
17 services, communities. And Vince and his team have done
18 an excellent job. That's been a very successful
19 project. It was really sort of taking that common sense
20 ITS technology and coordinating a lot of different
21 departments. I think there's --

22 MR. VALDES: Over 60.

23 MR. AUGUSTINE: -- over 60 departments, you
24 know, federal, state and local, in terms of who is
25 involved in providing human transportation services.

1 This would boil it down to one call center as we
2 coordinate across many different jurisdictions. It's
3 really a nice project.

4 We do have a set-aside called SBIR, small
5 business innovation research, and this trying to get to
6 small managed businesses to give them opportunities to
7 meet research needs the department has. This is
8 coordinated through Volpe Center, coordinating this on
9 behalf of the entire department. We provide funding to
10 that, and we also provide our requirements. Any types
11 of research requirements the department may have, we put
12 that out in solicitations, and SBIR businesses do bid on
13 that.

14 Then we have one of the larger pieces of the
15 congestion issue. We had one last funding increment to
16 fund that. And as we talked about earlier, this did go
17 to such things as the Smart Parking and parking
18 availability totalling throughout --

19 How many sites do we end up with, Brian?

20 MR. CRONIN: Six.

21 MR. AUGUSTINE: Six. We had seven, and we lost
22 one. We ended up with six different places throughout
23 the United States. So this is what we call our legacy.
24 And things that we start now and several years will
25 become legacy, they all have a tail so we finish them

1 up. But these aren't necessarily -- if you look at
2 those, you say, "Well, the Mobility Services for All
3 Americans, how does that fit into your sort of wireless
4 connectivity theme?" It doesn't. That's from a
5 previous plan that we're finishing out.

6 Then we also have this tech transfer and
7 evaluation. All the research we do, we do perform an
8 independent evaluation. We don't like to say, "We did
9 it. We love it. See how great it was." We let
10 independent folks come in and really systematically go
11 through the outcomes and performance and provide lessons
12 learned, what worked, what didn't work, why and get that
13 to the community.

14 The professional capacity building is a piece
15 of our legislation which requires us to do work for
16 training. So as we develop all this ITS technology and
17 research and results, again we don't want to just throw
18 it over to the operators in the field. We want to
19 provide them with guidance and training and get them to
20 understand how it was developed, how can we operate it,
21 how do you maintain it.

22 I think this -- long ago, this was getting the
23 pavement and construction folks to think about IT. I
24 think we're moving now from having the IT-savvy
25 maintenance folks thinking about how do you utilize the

1 applications and data in a more efficient and maybe more
2 multimodal fashion. This is something that's always
3 evolving as the ITS research evolves. The training and
4 the PCB will evolve with it.

5 And we do the architecture and standards.
6 That's about \$4 to \$5 millions per year. That does
7 include the harmonization work with Europe and Japan and
8 I should say North America, too. We do coordinate
9 heavily with Transport Canada. Less so with Mexico, but
10 we do have some outreach there.

11 MR. DROBOT: Just a question. If I look at the
12 headings, does each of these sort of represent the
13 project, essentially?

14 MR. AUGUSTINE: In some cases, yes; in some
15 cases, it's bundling a project. I-95 corridor
16 coalition, we provide \$6 million to them per our
17 legislation that is set aside. Above that, there may be
18 multiple projects. So the Safe Trip-21 --

19 MR. DROBOT: So they're all under that heading?

20 MR. AUGUSTINE: Right. In some cases, let's
21 say Mobility Services for all Americans, that is one
22 project. But in that project, we had multiple sites. I
23 think we had three pilot deployment sites: Paducah,
24 Kentucky; Camden, New Jersey --

25 MR. VALDES: Right.

1 MR. AUGUSTINE: -- and I'm forgetting the third
2 one.

3 MR. VALDES: North Carolina.

4 MR. AUGUSTINE: North Carolina.

5 MR. DROBOT: So when I look at an area, like
6 the evaluation or systems engineering, does that then
7 break out into how it supports each of the projects, or
8 is that an activity off by itself, essentially?

9 MR. AUGUSTINE: In most cases -- again, this is
10 the challenge of trying to present a hundred-million
11 dollars. It is broken into many different pieces.
12 Systems engineering is a cross-cutting piece.
13 Standards/architecture is cross-cutting.

14 What we mean by that is all of the work here
15 that we're doing, if there becomes an issue where you
16 say, "Well, that's a great technology, but you really
17 need to standardize that" or "This mode has a different
18 standard, and what you're talking about is a new
19 standard or modification," we would take that and flow
20 it into the architecture and standards crew.

21 Systems engineering, same thing. We're looking
22 at V2V, V2I, dynamic mobility, all these data
23 environments. We do want to say, "Hold on a second.
24 How do we systematically think through if we're going to
25 create a data environment? How would it support all of

1 these different groups? What are the requirements?

2 Let's make sure we think through that before we just
3 bundle a lot of data and stick it out there and it
4 doesn't support people."

5 MR. DROBOT: So when you look at, let's say,
6 V2V, V2I, on top of what you're spending there, there
7 will be an evaluation piece and a technology-scanning
8 piece and a systems-engineering piece that supports
9 that?

10 MR. AUGUSTINE: Well, the technology-scanning
11 would be a little bit independent, but, yes, the
12 evaluation would be -- if we start a research, there
13 will be tail-end evaluation to it. I would say they
14 work in harmony.

15 So the standards and architecture program work
16 with the existing technologies today, what is the
17 current standard, as well as the emerging technology.
18 How does that fit into the current standards? Do we
19 need a new one? Do we need to modify old ones? Do we
20 need to harmonize U.S. standards or American standards
21 with Europe so they co-exist?

22 I think I understand what you're saying. This
23 is not first we do the research, then we communicate,
24 then we do the certification, then we do the evaluation
25 all of one project. It's more of a matrix environment.

1 MR. SUSSMAN: Again, I'm going to shoot for
2 getting you off the stage at 9:30, so let's everybody
3 keep an eye on the clock.

4 MR. VALDES: I have a few slides, or are we
5 going to have a conversation about my topic?

6 MR. SUSSMAN: I didn't realize there was anyone
7 other than John on the agenda.

8 MR. AUGUSTINE: We were going to integrate
9 Vince.

10 So let me cut through here. I think we're
11 almost there. So we talk about the exploratory research
12 and some of the foundational research. This, again, is
13 systems engineering, technology scanning. That cuts
14 across. It's not dedicated to any one of the projects,
15 but it supports all of the projects.

16 MR. DENARO: A quick question.

17 MR. AUGUSTINE: Sure.

18 MR. DENARO: Rob mentioned earlier about our
19 contribution of inside sustainability. Where does that
20 fit; which heading would I find that?

21 MR. AUGUSTINE: Sustainability?

22 MR. DENARO: Yes.

23 MR. BERTINI: Environmental sustainability is
24 under the AERIS project. Page 9.

25 MR. AUGUSTINE: I think chart 10 is a segue

1 into what you were talking about, Adam. You can see
2 here a little bit more clearly. We have the safety
3 mobility environmental groupings. That does, again,
4 speak to your question about where does AERIS belong.
5 So the point is we have the applications layer, the
6 technology and policy layer, we have the individual goal
7 areas.

8 And this is sort of how the major -- the
9 current research, we didn't really apply the legacy
10 research to these groupings, but you can sort of get a
11 feel of what we're doing and how does it support the
12 different goals and what are the research pieces that
13 support each of these projects.

14 MR. SUSSMAN: So this is a very important
15 chart, because the received wisdom coming into this
16 meeting, at least received by me, was IntelliDrive is a
17 safety program; one to one, that's where it is. What
18 you're saying here is IntelliDrive addresses a variety
19 of different goals and objectives, safety, mobility, the
20 environment --

21 MR. AUGUSTINE: Correct.

22 MR. SUSSMAN: -- and so on.

23 MR. AUGUSTINE: Correct.

24 MR. SUSSMAN: That's very important, because we
25 need to know if that's, in fact, credible.

1 MR. AUGUSTINE: And I think that's some of
2 the -- the nice part of IntelliDrive, it sort of puts an
3 umbrella around everything. The bad part is it's too
4 broad. You clarified it very well, Joe. There is a
5 safety portion, which is the V2V, vehicle-to-vehicle,
6 V2I, vehicle-to-infrastructure, work.

7 But the data capture, data management is purely
8 mobility. We have an environmental piece. So, yes, the
9 wireless connectivity can support multiple goal areas
10 depending on how you use the data.

11 It's really the same data being applied in
12 different ways and, you know, fusing other data with it
13 to extract more value, sort of the application
14 development we talked about yesterday.

15 Yes, you're right on, Joe. It definitely
16 supports multiple goal areas.

17 MR. KISSINGER: What I just heard you say is a
18 little different than what Joe asked. You're saying
19 IntelliDrive supports that other stuff, but it doesn't
20 necessarily include that stuff, right?

21 MR. AUGUSTINE: It's inclusive as well when I
22 say "support," meaning the data from IntelliDrive would
23 feed into the data capture, but other information would
24 come in as well. It's not just DSRC data. That data is
25 out there and can be used, but a whole lot of other data

1 would be brought in and used as well.

2 MR. SUSSMAN: I don't want to go into pit-bull
3 mode just yet. Maybe later. This is making the
4 stipulation that IntelliDrive is the ITS-JPO research
5 program. We threw everything into it. And we took
6 AERIS, we took all this other stuff, and we said, "Oh,
7 yeah, that's IntelliDrive, too." So when guys like us
8 say, "Gee, IntelliDrive is just safety," you say, "Oh,
9 no, it's not. It's got mobility, it's got environment"
10 and so on and so forth.

11 MR. AUGUSTINE: I guess the distinction is --
12 for safety it is the V2V and the V2I. The data coming
13 from DSRC drives those applications. For mobility and
14 environment, it may or may not drive those applications.
15 And in the case of mobility, we know it has to be other
16 datasets.

17 So IntelliDrive, that's why I said supports.
18 This gets back to technology agnostic versus DSRC. The
19 one thing we are pursuing concretely is DSRC for safety,
20 so knowing that's there, we should at least look at can
21 that data support these other areas. Maybe yes; maybe
22 no.

23 Regardless, let's set that aside. We know
24 other data sources are out there, and we're going to use
25 those. We think they may actually be the totality. We

1 may not use any of that DSRC data.

2 MS. BRIGGS: I think the important thing to
3 think about is IntelliDrive is synonymous with wireless,
4 not synonymous with DSRC.

5 MR. AUGUSTINE: Good distinction.

6 MS. BRIGGS: IntelliDrive is anything that can
7 be done with wireless applications; that's how we
8 originally defined it. So that means that when we're
9 talking about the mobility program, there are many
10 wireless communications that can be used for data and
11 applications.

12 MR. AUGUSTINE: That's a good distinction.

13 MR. DROBOT: John, just one question. When I
14 look at a chart like this, I have on safety V2V, V2I and
15 safety pilot. If I take a look at the auto industry,
16 there are other approaches to dealing with safety. For
17 example, sensors which don't require any communication
18 means. How do you in this program address an interface
19 and the interaction between communication-based
20 approaches and non-communication-based approaches?
21 Whose responsibility is that?

22 MR. AUGUSTINE: Well, we have looked at that.
23 We have haven't included that in this presentation.
24 That's an example of a legacy project that we looked at,
25 the integrated-vehicle-based safety systems where it's

1 looking at autonomous and cooperative or
2 wireless-to-wireless systems. How do they work
3 together? Again, that was a project we worked with in
4 partnership with NHTSA. So we have to be cognitive of
5 the autonomous systems that are out there, and they're
6 being deployed as we speak.

7 I guess, Jim, maybe you want to speak about
8 this a little bit.

9 Those systems are out there and will probably
10 be out there for the foreseeable future. As we
11 implement the wireless communications, what is the
12 interplay between the two.

13 And the IVVSS project was designed to say if
14 you have both, how do you prioritize the signal warnings
15 from either lane departure for collision warning, blind
16 spot detection, all these different sensors, and how do
17 you present a warning that is safe and effective and is
18 interoperable across all vehicle fleets, because the
19 issue today with the autonomous sensors is that for
20 Toyota it may be different than what Honda would give
21 would be different from Ford. So we don't want all of
22 these different buzzes.

23 When you get in, you know, your wife's car, it
24 buzzes you and you turn left, and you get in your car,
25 it beeps and you turn right. It needs to be effective

1 and interoperable. The easy way is we're aware of
2 those. We've done research on that. We're coordinating
3 with the groups that are looking at that, but our
4 wireless connectivity is really the theme.

5 I guess that's one of the other takeaways from
6 the previous advisory committee that says, "You're doing
7 a lot of great work. You've got all these different
8 initiatives, but they're a little bit scattershot. You
9 know, you're doing paratransit. You're doing
10 congestion. These are all great, but what's the theme?
11 How would one sort of apply some focus to what you're
12 doing?"

13 So wireless connectivity is really where our
14 focus is, not to say we're not aware of and don't
15 interface with the autonomous systems. And there's lots
16 of other examples, you know, alcohol detection systems.
17 I mean, there's tons of safety out there, and we have to
18 work at it. Our main focus is the wireless
19 connectivity, because we think we're going to get the
20 most leverage. You can take the same data and using it
21 the most ways.

22 MS. CHASE: As you say that and you're
23 reflecting on Valerie's comment just now, if
24 IntelliDrive equals wireless and doesn't equal DSRC, I
25 would recommend not calling it IntelliDrive, calling it

1 wireless. IntelliDrive, as we pointed out at our first
2 meeting, means cars, and it means driving cars. And
3 then to "No, no. It means all these other types of
4 vehicles," blah, blah.

5 Every time I hear "IntelliDrive," I believe
6 you're talking about DSRC. If you're talking about
7 wireless, let's call it wireless. Another nice piece
8 about that is that IntelliDrive says, "This is our
9 transportation-centric-only thing that we're working on.
10 When we talk about wireless, that means just like
11 everything else in the world; we're doing something
12 wireless."

13 MR. BERTINI: Could I just say that, frankly,
14 we agree. Peter Appel and I agree with you.

15 MR. AUGUSTINE: Vince would, too.

16 MR. VALDES: We always did.

17 MR. BERTINI: Peter Rogoff, the FTA
18 administrator, agrees.

19 In these slides -- I believe the word
20 "IntelliDrive" does not appear anywhere in the slides we
21 presented yesterday or today. In documents that were
22 prepared before I was at DOT, "IntelliDrive" was in
23 there. There are templates and documents with
24 IntelliDrive around.

25 We believe that the truth about the importance

1 of connectivity, wireless connectivity, is really
2 important in that in some ways the name has become a
3 lightning rod for some, who agree with you. And on the
4 other hand, it's become a rallying point for others who
5 find it a useful tool. So we're working on that, and we
6 absolutely agree --

7 MR. AUGUSTINE: And we may look to calling it
8 something different if that helps get us away from that.

9 MR. BERTINI: So that kind of specific input
10 from this group is really valuable.

11 MR. AUGUSTINE: You're not the only one that
12 said that to us, Robin. That's a valid comment.

13 MR. SUSSMAN: It says "IntelliDrive" on the
14 hard copy that you distributed to this group, of course.

15 MR. AUGUSTINE: We're only talking about the
16 electronic version, Joe.

17 MR. BERTINI: We edited the electronic version.

18 MR. SUSSMAN: You redacted the "IntelliDrive
19 research program components" into "ITS research program
20 components."

21 MR. KISSINGER: Beyond the definition, I'm
22 still concerned -- I mean, I'm still very confused about
23 priorities. I realize this budget is a matrix and
24 whatever, but you've got this great chart here, and if I
25 were to ask you what percentage of your total balance

1 goes to safety, can you answer that? I suspect it's
2 more than 17 percent, which is what's on the chart that
3 has V2V and V2I.

4 MR. AUGUSTINE: So going into 11 and 12, the
5 dollar amounts for safety do increase, because when we
6 developed this plan, we said, well, we're going to
7 slowly roll these things out and then they get into full
8 mode. The safety pilot right now is a multiple -- I
9 guess it's three-year project, and I think it's in the
10 \$40 million range right now the way it's correctly
11 scoped.

12 And, again, the reason we didn't give you
13 specifics on 11 is we have not gone through the
14 Management Council, so we don't exactly what that budget
15 is going to look like for 11 so we just went with the FY
16 10. But you're correct, Peter --

17 MR. KISSINGER: Can you give me a ballpark what
18 you think 10 will be?

19 MR. AUGUSTINE: Going in FY 11 and 12 and
20 beyond, the safety piece, if we look at all of that
21 together, I would say maybe 60 percent of the budget
22 right there if you look at just those three pieces.
23 We're not including the standards and architecture and
24 all that other stuff. But if you look at these three
25 pieces, I would say, you know, 60 to 80 would be on

1 safety.

2 Now, the mobility research also ramps up, too.

3 I don't have my budget chart right in front of me. But

4 I think over the three-year period --

5 Brian, do you have a ballpark on our mobility
6 research? Was that 16 million for the next year and
7 then it ramps up somewhat?

8 MR. CRONIN: Yeah. Sort of 16, 20, 12.

9 MR. SUSSMAN: I suggest we don't try to do
10 real-time arithmetic here, but I think it's a very
11 important question that Peter asked, which is can you
12 tell me the percentage of money spent on safety,
13 mobility and environment. I'm interpreting your answer
14 as "No, I can't."

15 MR. AUGUSTINE: Not at this moment, but I would
16 say the majority -- as we go forward, it does focus
17 heavily on safety. We can give you a breakout for each
18 of them.

19 MR. SUSSMAN: That would be helpful. Thank
20 you.

21 Let's keep it moving.

22 MR. AUGUSTINE: We covered this chart
23 yesterday, but I think it gets into what we were talking
24 about. The wireless connectivity somewhat supports
25 different modes, the trucking, the transit, rail, even

1 pedestrians. This, I think, gets to Robin's issue about
2 wireless connectivity. What we're pursuing here gives
3 you an example of typical urban environment today versus
4 one with IntelliDrive or wireless connectivity, whatever
5 you want to call it.

6 All that data can be used by different people
7 for different purposes, so whether it's someone trying
8 to get to the next bus or the next subway or what's the
9 routing for the freight or what's happening on the
10 transit vehicles in terms of arrival schedule as well as
11 the safety, too -- we have the safety message there --
12 it's inherently multimodal because the data will support
13 the different modes, and that's all we're trying to show
14 by this slide.

15 Quickly, I do want to say save and keep us on
16 schedule, the rail project we're looking at, integration
17 of heavy rail, commuter and freight rail, also looking
18 at how do we interface with the positive train control
19 and the rail grade crossing safety. We know that's one
20 of the major safety areas, is the interaction of
21 vehicles and the rail. And, again, we're also looking
22 at integrating this with Canada.

23 A couple of other examples, the Smart Roadside
24 for the commercial vehicles, we haven't worked closely
25 with Motor Carrier. I think that their partnership has

1 really increased over the past year. We're looking to
2 do a lot more with them. And in terms of looking at
3 heavily instrumented professional vehicles that have a
4 lot of data communication already, how do we leverage
5 that, how do we look at applying ITS technology more
6 aggressively in a freight environment. We're going to
7 be doing that.

8 We talked a little bit about the safety pilot.

9 I won't dwell on that too much except to say that it
10 does include a transit element, a freight element, a
11 light vehicle element. And on the next slide, I think
12 Brian mentioned this a little bit yesterday, that all of
13 the data we collect from that safety pilot, we're going
14 to be using essentially the archive of that for mobility
15 and environmental and other types of research.

16 So while the focus -- and we put the safety
17 pilot in the safety goal, because that is why we're
18 doing it. It is a safety program. We want to leverage
19 all that data for other applications. So that's going
20 to be really the first proof on real-world environment
21 of how all this really comes together.

22 Chart 20 is the maritime piece, and we have
23 worked with our maritime colleagues, and they're
24 actually quite interested in figuring out how do they
25 look to use ITS data to improve freight flows and make

1 better decisions on where the freight goes once it
2 leaves the port. And right now, it's shockingly
3 inefficient. I think all of the freight essentially
4 gets off at the port, and they make decisions without
5 understanding the conditions of the rail or the
6 highways. Those options are not well understood.

7 There is really a lack of coordination at the
8 ports with how the rest of the surface transportation
9 system works. So this is an opportunity to really say
10 you have all of these containers coming off. You know
11 the condition of the surface transportation environment.
12 You know the location in some cases electronically of
13 the freight. Why don't we maximize efficiency?

14 So this will be a good opportunity to really
15 pull in the maritime environment and look at freight
16 flow improvement.

17 MR. SUSSMAN: That's excellent. We've talked a
18 lot about multimodal over the last several days. This
19 is really the first example we've seen of intermodal,
20 where one is actually using the technologies to
21 interconnect between modes. That's very important.

22 MR. AUGUSTINE: And this is the case where I
23 would say with the Maritime Administration, they're a
24 very small mode with an extremely small research budget.
25 Without having an ITS funding, it just wasn't possible.

1 So by us reaching out to them, they said, "This is
2 great. We'd be glad to work with you."

3 This chart is simply trying to convey how the
4 different research elements -- and most of these here
5 are independent, discrete projects, Adam, so we didn't
6 include a lot of the cross-cutting. A quick look at
7 this, I believe all of these are discrete projects, and
8 you can see whether they're involving -- the different
9 modes are participating, whether it's transit, car,
10 truck, rail, maritime.

11 In the TBD, we haven't made a decision yet.
12 There's a possibility that the rail and maritime could
13 be involved in that. They're just not involved yet.
14 We're not saying they won't be, but we can't say to you
15 today that they are yet. We're working those with the
16 different partners.

17 That's it for my presentation. Do we want to
18 try and get Vince up here and cover his?

19 MR. VALDES: Just maybe take five minutes. It
20 will be real quick.

21 MR. SUSSMAN: John, thank you for your
22 presentation. The questioning was vigorous, but I think
23 you held up very well.

24 MR. VALDES: You know what I like about this
25 research advisory committee is that it's actually much

1 more collegial than my own, so this is a pleasure. You
2 can all come to mine anytime you want.

3 MR. DENARO: We can fix that.

4 MR. VALDES: Thanks for the opportunity to
5 speak to you today. I wanted to talk a little bit about
6 what we're doing in transit, but instead of going
7 through my presentation kind of slide by slide, which
8 you can all read and perhaps even send me an e-mail or
9 ask me questions about later today, especially after
10 you've had your conversation, I'd like to read something
11 to you that came out the City Fix, which is a blog in
12 D.C. I think it's a good illustration of what we're
13 trying to get to with respect to ITS and transit
14 research.

15 "In the American capitol, pedestrians and
16 transit riders will soon be enjoying a veritable buffet
17 of information about their transit options, available on
18 digital displays across the city. District Department
19 of Transportation Director Gabe Klein" -- who has since
20 left, by the way -- "unveiled on Monday a new multimodal
21 information screen, a prototype for those that the
22 department will be placing in bus shelters and at major
23 pedestrian activity centers throughout the District as
24 early as this spring."

25 "D.C.'s new displays, which are being funded by

1 a TIGER grant from the U.S. Department of
2 Transportation, are a part of a larger trend across the
3 globe to provide easy access to transportation
4 information for city dwellers. In D.C., as in many
5 other places, the intention is that by giving people
6 more information, more often, and more easily, they will
7 make better choices about their mobility."

8 "The concept is basically an extension of
9 'rational choice theory,' which says humans make
10 rational decisions to maximize utility, assuming they
11 have perfect information about the available choices.
12 'Bounded rationality theory' recognizes that people have
13 neither the information nor the cognitive capacity to
14 consider all of their available choices, but it
15 acknowledges that we can increase utility by increasing
16 the information we use to make decisions."

17 Yes, we acknowledge at FTA that safety is a
18 very important role, and I'm not going to be here to
19 argue against that. But we do also recognize for our
20 own purposes -- let's see if I can -- for our own
21 purposes that we want to improve the information that's
22 being provided to transportation users, not just in
23 transit but across all modes.

24 You know, I could talk to you about what's been
25 happening in terms of ITS or transit ridership over the

1 last five years, especially given fuel prices, and if we
2 see \$5 a gallon this year, which some economists are
3 predicting, I suspect we'll see a spike in that again.
4 But, again, what we're looking at doing is providing the
5 information and working with the JPO to get mobility to
6 a point where people can make rational choices about
7 what they're choosing for transportation.

8 This is kind of a quick ridership trend, and I
9 think I have 2009 data not on the chart that indicates
10 that there were 10.2 billion transit trips over the last
11 in 2009. What's interesting is that we're getting
12 transit riders who are not just first-time users. We're
13 getting people coming back to transit. And we want to
14 provide an improved level of service to that transit
15 community, to those users who are really looking to stay
16 with transit.

17 Just to let you know kind of some of our
18 activities, we've been working very closely with the JPO
19 to develop our own ITS strategic plan for transit and
20 how it's going to be deployed. It was Adam, I think,
21 who pointed out that at the modal level, and I think
22 John acknowledged, we really are more about deployment
23 per se than research, and that's the way it should be.

24 Again, we worked with the JPO to help define
25 our strategic goals and kind of link what's going on at

1 the JPO with our own strategic goals, which include
2 livability, environmental sustainability, economic
3 development, safety, of course.

4 Here they are in quick chart form. We're very
5 interested in state of good repair. We've done a number
6 of studies that indicate that there's between \$70 and
7 \$80 billion in deferred maintenance in the transit
8 community. That's obviously a big concern to us with
9 respect to level of service and obviously safety. And
10 so we have to look at kind of ways of how we're going to
11 provide the funding to improve the infrastructure.

12 I think as we go through that process, though,
13 and I know I've been talking to my administrator about
14 it, we're very interested in not just restoring what's
15 been in place but improving the infrastructure so that
16 it accommodates ITS.

17 Again, these are some examples of where ITS
18 applications have led to real benefit to the transit
19 community, including park-n-Ride; the universal payment
20 systems; traveler information systems, which I just
21 cited; and, again, human services, as John pointed out
22 earlier; the Mobility Services for All Americans; and,
23 of course, active safety systems.

24 It was interesting to talk to Joe earlier about
25 perhaps an area that we should be looking at instead of

1 V2V and V2I is V2P, vehicle-to-pedestrians, since so
2 many incidents are buses-to-pedestrians, and that's a
3 big area of concern in transit.

4 This is kind of an ITS benefits taxonomy that
5 one of my technical geeks put together for me. You can
6 read it for yourself. These are the areas where we see
7 the benefits really kind of flowing to in our particular
8 industry. Again, here are some stats on where we've
9 seen actual improvements given the deployment of ITS
10 technology.

11 That second bullet point there, schedule
12 adherence, through large surveys that we've done through
13 our industry, that's the single-most-important level or
14 service area that is important to transit riders. We've
15 seen in one case that 23 percent where you see it's
16 going up was in Baltimore once they were able to apply
17 ITS technology. So those are real benefits that
18 improve, again, the ridership experience for transit
19 users. Where are we going in the future? Again, we
20 want to see ITS more integrated with BRT. Obviously,
21 it's part and parcel of that entire suite of approaches
22 to providing enhanced bus service. We do expect that
23 there is going to be an increased demand. It was
24 another stat in here. Which one was it? It was the
25 Orange Line in L.A., which underestimated its ridership

1 by 200 percent in their BRT system. That's kind of what
2 we're looking at.

3 Again, it's all about multimodal connectivity.
4 For our purposes, we do see ourselves as being part of
5 the multimodal kind of melange, the fabric of surface
6 transportation. Again, ITS for us is really more of a
7 deployment issue and a tool than necessarily in and of
8 itself an area that we want to do research in. In that
9 regard, working with the JPO is very important for us
10 because they do have that 50,000-foot view that we need
11 to have.

12 Any questions? I went through that fairly
13 quickly.

14 MR. SUSSMAN: I'm smiling because I'm looking
15 at the hard copy, the global change of getting rid of
16 all "IntelliDrives" that were mentioned, but I
17 understand. Go ahead.

18 Gen, please.

19 MS. GUILIANO: Transit is kind of one of my
20 favorite topics, so you'll have to forgive me.

21 MR. VALDES: Mine, too.

22 MS. GUILIANO: I know we're pressed for time,
23 but I just want to say that Barcelona has absolutely
24 everything that's on your charts in operation today --

25 MR. VALDES: Sure.

1 MS. GUILIANO: -- along with 50 other small
2 cities in Europe somewhere. So my question is -- this
3 is great. Who's doing the research or what is
4 informing again back to the institutional and political
5 barriers that prevent this stuff from being on the road
6 now?

7 MR. VALDES: It's a great question. And I
8 have, perhaps, the blessing and the curse in my research
9 office, particularly I also have the international
10 program. So I know very well the experiences that are
11 going on in Europe and in Asia, and sometimes I kind of
12 hang my head in shame that we're not doing some of those
13 same things. The funding just isn't there necessarily
14 to bring us up wholesale and implement all these
15 technologies.

16 I think we have to look at it strategically.
17 Not all of the benefits and not all of the technologies
18 that are available are going to be put in place all at
19 once. We have to work -- because there are limited
20 funds, because we're talking about a hundred-million
21 dollars roughly at the JPO level that we all access to
22 do our various research and deployment, we really have
23 to think strategically.

24 It's a decision, I think a right decision, on
25 the part of DOT that safety is going to be the focus in

1 the short term. We're talking about 34,000 people --
2 fatalities every year. That's 95 people a day,
3 approximately. That's where we have to focus at the
4 moment our energies and our funding.

5 Now, in terms of how we implement these
6 technologies for transit, we're thinking about that as
7 well. We've put together -- again, in collaboration
8 with the JPO, we've put together our strategic plan that
9 talks about how these technologies should be put in
10 place and, again, kind of evolves to the funding levels
11 that we see in terms of improving our own industry and
12 the infrastructure.

13 MR. CALABRESE: I just wanted to say that I
14 think you'll find all those in Cleveland.

15 MR. VALDES: Many of them, yes.

16 MS. FLEMER: I guess I would suggest, too, that
17 maybe the approach on this is not new research but how
18 to coordinate among all the transit entities themselves
19 in metro areas lessons learned and moving forward. What
20 we've done in this region is most of our funding for the
21 transit technology is not out of transit program. It's
22 out of the STP/SEMAC program. I think that's also the
23 opportunity within the Department of Transportation,
24 that all of the different flows of funding ought to be
25 made as flexible as possible.

1 I know there are parts of this country who
2 still don't think that they can spend STP or SEMAC on
3 this kind of stuff, but there are parts of the country
4 that are doing it. So that's -- I guess that's the
5 question maybe more since it's transit to ask others
6 what would be the best approach to get these ideas more
7 broadly deployed and to more effectively compare notes.
8 Seriously at the local level, the resources aren't there
9 for any one part of the country to initiate that.

10 MR. VALDES: And, believe me, we would be here
11 at least two more days talking about that.

12 Gen, I'm not trying to dodge your question.
13 What I'm talking about is, you know, kind of problematic
14 changes within FTA itself that would probably lead to
15 the deployment of these technologies.

16 We were talking about the New Starts process
17 before. I'm not, frankly, a particular fan of our own
18 New Starts process. There's no way of really kind of,
19 frankly, rewarding innovation in the New Starts process.
20 It becomes actually kind of almost a barrier to
21 innovation. People have heard me say that within FTA
22 before, but that's kind of an internal process within
23 ourselves that we're trying to work through so that
24 these technologies that we're working to develop with
25 the JPO ultimately get out into the transit world.

1 MS. CHASE: A question. When we talk about
2 safety and transit and IntelliDrive, is there a
3 statistic -- could there be research done, a statistic,
4 on what is the cost of death averted by someone moving
5 to transit over solving V2V and V2I problems? I just
6 think we have 34,000 deaths a year. Yes, down
7 fabulously since previously years. But it's not clear
8 to me that it's down fabulously because of automotive
9 improvements. It's down because people are not
10 traveling in cars.

11 So I would think that if the number one goal of
12 the next two years is safety for research dollars, that
13 maybe doing these things they're doing in Barcelona is a
14 method of getting people to use transit more, which
15 would be immediately beneficial in terms of deaths.

16 Every time I hear about the focus on highway
17 deaths, I think -- and this is where I look to what is
18 the statistic. If we really deeply believe we want to
19 reduce highway deaths, it would be to persuade people to
20 not get in their cars because of other modes of
21 mobility. If we could get to that in a fact-based
22 method, it seems like it could be a mechanism by which
23 we could turn around these research dollars.

24 MR. VALDES: It's a great idea.

25 MR. SUSSMAN: I'm going to call a halt, if I

1 might.

2 MR. VALDES: Sure.

3 MR. SUSSMAN: We appreciate you taking short
4 trips on time. I didn't realize that you were part of
5 that session. You used your time effectively.

6 MR. VALDES: Not a problem.

7 MR. SUSSMAN: Thank you, John, for your
8 presentation.

9 It's 20 to 10:00. We'll start about five to
10 10:00 on the session that will deal finally with what
11 our role is and what we can do to effectively
12 contribute. There's coffee available. We'll start in
13 about 15 minutes.

14 (Recess taken.)

15 MR. DENARO: We're about to begin what follows
16 what we started yesterday, our discussion on the role of
17 the committee and how we can make a new impact and so
18 forth. Obviously, folded in there are a lot of the
19 issues that we raised yesterday.

20 How long are we going to go on this, Joe, do
21 you think?

22 MR. SUSSMAN: This takes us right to the end, I
23 think.

24 MR. DENARO: So we've got the two hours
25 available.

1 Joe and I collaborated on a few charts to just
2 kick it off. However, Joe has more than I, so I'm going
3 to ask Joe to present his charts. These are the
4 conversation starters. We'll start with that. And then
5 it's really my hope that we can converge on this
6 discussion this morning so we go out of here with a
7 little bit of understanding of what our role is and
8 where we're headed.

9 Obviously, we can't resolve all of the
10 advice -- we can't converge on all the advice that we're
11 going to provide here today in the two hours we've got.
12 We'll have to continue that through e-mails and so
13 forth. But we ought to be at least on common ground
14 when we get out of here. I want to ask everyone to
15 attempt to be part of the solution, and let's find a
16 way.

17 MR. SUSSMAN: Thank you.

18 What I want to do here is just get some ideas
19 in front of us, so, as Bob suggests, we come out of here
20 with some ways to advance in a way that can be effective
21 for JPO as well as a good use of talents of the many
22 people we have around the table representing different
23 points of view. I'm not drawing a line in the sand here
24 and saying don't cross it. I just want to get the
25 discussion started. We need a productive way forward.

1 We've been talking now through two meetings.
2 We've learned a lot. We've gotten to know each other
3 pretty well. We represent many different
4 constituencies, many different points of view, but I
5 believe we can come up with some ways in which we can
6 reach common ground and be helpful to JPO and make a
7 contribution.

8 I put this up as the straw man the program
9 advisory committee's role, first, to provide actionable
10 advice that can add value to JPO's work, tell them stuff
11 they can, if they so choose, put into play and add value
12 to what they are doing, but in some sense independent of
13 JPO to use, if you will, the oft-used term "bully
14 pulpit" that the advisory program has to advance ITS,
15 both nationally and internationally using the stature of
16 the many people around this table.

17 So that's a short answer to the question "What
18 is our role?" We'll presumably get into more detail on
19 that.

20 There are some messages from yesterday and
21 even, in fact, continuing even into this morning. We
22 heard from everybody we need to focus on getting
23 something done, that safety is an important goal but
24 certainly not the only goal.

25 People seem to resonate with the idea of

1 subcommittees, sending subsets of us off to work on
2 particular issues. The CTO meeting, the White House CTO
3 meeting, chief technology officer meeting, is a
4 potentially very important opportunity. I don't think
5 we're particularly ready for it, but it could, in fact,
6 when we are be a terrific opportunity.

7 The question of whether JPO is focusing on
8 IntelliDrive in a way such that a fully usable platform
9 can be developed, this may go to the definitions of what
10 we mean by that. There are some very long time lags in
11 the system getting devices into vehicles, brand-new
12 ones, those already in the fleet.

13 In order to get the kinds of safety benefits
14 that are suggested is a major concern. Somebody said 25
15 years yesterday. And while DSRC is important for a
16 low-latency real-time safety application, there's
17 clearly the need for other communication mechanisms to
18 meet other needs within ITS. So these are some
19 overarching understandings that Bob and I had from
20 yesterday's discussion.

21 So the fundamental question that I think we
22 have before us, as I would pose it, is how well is the
23 federal ITS program performing? How are they doing?

24 To answer that question in a way that has any
25 sense of rigor, we need to define what "performance"

1 actually means. What do we mean when we say are they
2 performing or not? And we have to establish criteria;
3 that is, we have to have a template, if you will,
4 against which we lay the program and say, "Are they
5 doing the right things? Are they doing them well?"
6 That's, if you will, the overarching question. I put
7 forward that JPO has several jobs, all predicated on the
8 notion of providing leadership in the ITS community.
9 That is not dominance, as we said yesterday, but rather
10 leadership. They have a leadership role to perform.
11 The particular subtasks they have are, of course,
12 performing R&D. They're an R&D organization
13 fundamentally.
14 But they have other responsibilities. They
15 have the responsibility, I would argue, of creating an
16 environment in which ITS had advanced as a deployable
17 element of a contemporary transportation system. I put
18 "deployable" in italics to point out that we've got a
19 lot of constituents who are very interested in
20 deployment who aren't especially interested in
21 discussing more R&D. They're interested in discussing
22 how we get the stuff rolled out there.
23 And while we are not here within -- while JPO
24 is not a deployment organization, that doesn't allow
25 them to say, "Not our job, not our problem." They still

1 have to provide an environment in which deployment makes
2 sense. And drawing on a comment that Scott gave us
3 yesterday, the notion of trying to position ITS as a
4 response to the policy challenges the U.S.
5 transportation system faces.

6 We talked yesterday about the lack of a vision
7 equivalent nominally to the interstate in the 1950s. We
8 don't that have vision. How can ITS and JPO be part of
9 a response to the problems that we have helping to
10 establish a workable vision? So that's their job, as I
11 see it. Obviously, we'll have a chance to discuss
12 whether I've captured everything or went too far.

13 So now let's talk about -- given the job, let's
14 talk about the criteria for evaluating how well they're
15 doing, and this gets into somewhat more detail along the
16 three dimensions that I mentioned here, performing R&D,
17 creating a deployment-ready system and positioning ITS
18 in the policy regime. I would argue that here's a way
19 one could sit down with the ITS program that we've heard
20 presented to us and give it thumbs up, thumbs down or
21 thumbs sideways, whichever it may be.

22 JPO should provide leadership in the ITS
23 community. JPO should provide a useful platform for
24 system development by others.

25 We've heard a lot of discussion about

1 IntelliDrive, whatever the new word is, wireless. The
2 notion of a platform on which other people can build to
3 create applications that have value, something that
4 people can run with in an effective way works toward
5 institutional transformation. You recall that in the
6 earlier report institutional transformation was one of
7 the five elements we identified.

8 And the question here is: "Is JPO working
9 toward an institutional transformation when it would be
10 of value to do so? PPPs, public-private partnerships,
11 and state and federal interactions are two particular
12 kinds of institutional reform one could imagine. We
13 talked about barriers to deployment. Why aren't we
14 deploying more quickly? One could at least forward the
15 notion that it's because of some of these institutional
16 disconnects that exist.

17 Fourth bullet, advance ITS as a contributor to
18 a sustainable transportation system. Peter Sweatman
19 spoke about that on several occasions. And at least as
20 I'm using the term here, sustainable means economic
21 development, environmental protection and social equity.
22 It includes all those. So multiple objectives going
23 beyond simply, for example, dominant concern with the
24 safety objective is important as it might be.

25 Yesterday in real-time, we pointed to the Larry

1 Bird idea. Does JPO make everyone else better, the
2 private sector, other levels of government? Do they
3 provide for the community a basis for good R&D
4 investment and deployment by the states and deployment
5 by the private sector? Are they creating that
6 environment for the field?

7 JPO is not a deployment organization, but I
8 would argue it has a responsibility to enable
9 deployments by others. It's not a standard-setting
10 organization, but they should enable the setting of
11 standards and international harmonization in the ITS
12 field.

13 So we can think about asking each of these
14 questions about what we've learned about JPO's programs,
15 how we would respond as to how well they're doing on
16 each of these dimensions.

17 I think this is the last set of criteria. Does
18 it have a multimodal or, if you will, intermodal
19 approach, or is it, as the wisdom has -- as many of us
20 understood it -- essentially a highway program with a
21 few extra bells and whistles? Is it truly multimodal
22 and intermodal? Does it have a technology strategy, and
23 is it one that utilizes -- "leverages" is the term I
24 used here -- technology development in other sectors?

25 Robin has talked about the notion of why are we

1 walling off transportation from the rest of the world of
2 technology. It should be drawing upon it. Does it have
3 a portfolio of both short-term and long-term research,
4 things that will be deployed very quickly, things that
5 may take quite some number of years?

6 In pragmatic terms, is JPO providing a rational
7 basis for a multiyear reauthorization of the federal ITS
8 program? We're grappling with reauthorization. There
9 are rumors it may even start moving forward. I've heard
10 rumors that it won't happen until after the presidential
11 election of 2012. Who knows what the right rumor is?
12 But certainly regardless, we need to ask is there a
13 rational basis for multiyear reauthorization being
14 provided by JPO. I'd argue that's a criteria.

15 And finally as a card-carrying academic, does
16 JPO contribute to ITS's work force development; that is,
17 is it providing -- is it helping -- is it creating an
18 environment in which we can educate people that move
19 into the work force knowledgeable in ITS? Those are
20 some criteria. Some you may want to expunge; others you
21 may want to add.

22 So now what do we do? Here's a shopping list
23 of what we might do: the idea that subcommittees are
24 important, that we've gone about as far as we can go
25 with 15 or 20 of us sitting around a table hashing these

1 things out, that we need now to go off in groups of
2 three or four or five and interact in that kind of a
3 setting.

4 I came up with several. Again, these are a
5 straw person. There's a subcommittee, I would argue, on
6 platforms and IntelliDrive. Is it, in fact, doing the
7 right things? It's clearly an example of long-term
8 research. That's fine, but is it going where it ought
9 to be going in the long term?

10 I suggest we need a technology strategy
11 subcommittee, a committee that considers the
12 technologies that ITS and JPO are considering and
13 ascertaining whether, in fact, they could do a better
14 job of, for example, technology scanning and the like.

15 A pretty obvious one, it seemed to me, was the
16 subcommittee on standards and harmonization, how is JPO
17 doing relative to setting up participating in the
18 development of standards and international harmonization
19 of ITS.

20 I put a subcommittee in quotes on barriers to
21 deployment. I'm not completely sure I understand what I
22 mean there, whether I mean we do the work that tries to
23 highlight what those barriers for deployment are or
24 whether that subcommittee, for example, would write a
25 work statement that says, "JPO, here's what you ought to

1 do to really understand what these barriers to
2 deployment are."

3 They all sound remarkably like the barriers we
4 were talking about in 1991 and 1992 when I was part of
5 the original in those days IVHS system. And the
6 barriers we identified were very much the barriers we're
7 still talking about.

8 And, finally, perhaps a subcommittee on overall
9 program evaluation, taking the 13 or 14 criteria I've
10 put out before and working towards doing that global
11 evaluation, if you will.

12 So those are subcommittees. One could argue
13 that we choose a few. We could go with all of them. I
14 don't doubt that people around this table have some
15 other ideas for what they might be.

16 The White House CTO idea, it certainly could
17 provide profile for ITS which, if properly orchestrated,
18 would be quite good. We get exactly one bite at that
19 apple. We bite it and we don't bite it right, we can't
20 go back and say, "Do over. We want to try this again."
21 We have to get that one right.

22 We need, therefore, to carefully think through
23 what the goals of such an activity are beyond providing
24 profile for ITS. So that's a different kind of a
25 subcommittee.

1 Where from here? I'm suggesting the following:
2 We establish some of these or all of these
3 subcommittees, and some you may mention, and ask them
4 all to report back before the Detroit meeting. That's
5 two months from now. The Detroit meeting is the 2nd and
6 3rd or 3rd and 4th -- I can't remember -- of March.

7 MR. BERTINI: 2nd and 3rd.

8 MR. SUSSMAN: 2nd and 3rd in Detroit. Kind of
9 the other bookend to this meeting in public
10 transportation territory. I'm suggesting we invite
11 Chopra to the Detroit meeting with one of these agenda
12 items to try and flesh out what we might try to do in
13 that kind of a White House setting. These are simply
14 the issues we identified in August, multimodalism and so
15 on.

16 If you recall, we had the five issues. What
17 I've suggested is criteria that relates pretty closely
18 to the issues that we had consensus -- reached consensus
19 on at the earlier meetings. That's it.

20 MR. BERTINI: One quick comment.

21 MR. SUSSMAN: Sure. Anybody can make any
22 comments they want.

23 MR. BERTINI: Just regarding Aneesh Chopra, I
24 think that your statement that we have one bite at the
25 apple is generally probably true, but I think if we

1 called him up tomorrow and talked to his team and said,
2 "We've got a subcommittee of our advisory committee. We
3 want to set up a call with you next week or after TRB,"
4 I think he would love to begin interacting with us right
5 now, and even several months ago, he would have liked
6 to.

7 He's ready, and he has one or two staff members
8 who are also ready. I think in one sense if we
9 orchestrate an event, that there's one bite at that, but
10 the opportunity to interact with him is probably a
11 longer-term thing where we will have other opportunities
12 if we could get going with him right away.

13 MR. DENARO: That's great to hear. And I think
14 in the sense of this preparation and getting it right, I
15 think some interaction with him a few times would be
16 very, very important so we understand where he's coming
17 from, really where we're coming from and then try to get
18 those together.

19 MR. SUSSMAN: I wasn't clear. The event is a
20 one-time bite of the apple. You don't get invited to
21 the White House all that often. I think that's pretty
22 clear. Anyway, you don't have hard copy, I'm afraid, to
23 look at this as we proceed.

24 Bob, I suggest we open the floor. You're the
25 moderator.

1 MR. DENARO: Thanks for the handoff, Joe.

2 Well, I guess we're open to comments.

3 Scott?

4 MR. BELCHER: Actually, before we get to this,

5 I have one suggestion for the March meeting. I think it

6 would be great -- in the way we did the first session

7 here, it would be great to have Ford talk about what

8 they're doing with the SYNC product. You might even get

9 Peter Sweatman talking about what they're doing in the

10 UTC context.

11 But learning a little bit more about what's

12 going on on the automotive, give a framework for both

13 IntelliDrive but also what else is happening, I think

14 would really help this group.

15 MR. DENARO: Oh, I agree. That was my

16 expectation for that meeting, actually, since we're in

17 Detroit. Hopefully more than Ford. Let's really try to

18 dive in with some guests and understand what's going on

19 there so we can understand this gap or bridge between

20 federal DOT and what's going on in private industry.

21 That might be a wider gap than we think. I think that

22 would be very illuminating for all of use.

23 Steve?

24 MR. ALBERT: Thanks for a great job of

25 summarizing all that, Joe and Bob, especially on where

1 to go.

2 Just a comment maybe on an additional
3 committee. It seems to me over the last 20 years when
4 you think back on ITS, even in the 1960s when we had a
5 mission to the moon, we had something out there that we
6 were trying to attain, some type of vision that everyone
7 could buy off on. It seems to me one of the things that
8 has been missing over the past many years, and probably
9 what a politician would ask is what's it going to take.

10 What would the ultimate buildout be in terms of cost?

11 I don't know exactly what that ultimate
12 buildout would contain, but I'm wondering if that's
13 something that the committee could do even in writing a
14 work scope for JPO to say, well, how much money would it
15 really take to build out a whole national-level system
16 that then would kind of address the way ITS has being
17 going in the United States.

18 It's been very piecemeal. Every two years, you
19 have a new plan. Every two years, you have a new
20 appropriation. Why aren't we looking more longer term
21 to say what we really need is a hundred billion dollars,
22 or whatever the number is, over the next ten year to
23 have a complete buildout that builds on the foundation
24 that JPO has already done, the research that they've
25 been conducting, that then you could go to the White

1 House and say, "Okay. We've got one piece of the apple,
2 but here's what we think it's going to cost to really do
3 this right."

4 And I don't know if that number has ever been
5 analyzed, collected, simulated, generated. Maybe
6 someone from JPO knows. I've never seen it.

7 But it seems to me that might also be an
8 additional committee just to try to work and develop a
9 work scope and use that in the opening sentence of the
10 piece that goes to the White House.

11 MR. DROBOT: Steve, in the political process,
12 naming the number like that first begs the question is
13 the President going to get behind the number. I can
14 tell you with what we just did on the national broadband
15 plan, that was avoided at all costs.

16 MS. CHASE: I'm confused what you mean by --
17 what kind of plan to build out what.

18 MR. ALBERT: Whatever the vision would be that
19 JPO has been working on. Some of it has been very
20 segmentalized to get to somewhere. Where are we really
21 trying to go and how much would all that cost? And I'm
22 not saying DSRC everywhere.

23 MS. CHASE: I'm just trying -- I feel it's a
24 little vague to me that under the former transportation
25 Secretary it was addressing congestion, yield demand

1 management, and this one it's traffic safety.

2 MR. ALBERT: I would think it would be what --
3 if we wanted a whole multimodal system to address both
4 urban and rural, what would it look like and how much
5 would it cost.

6 MR. DENARO: There is a strategic plan, so does
7 that strategic plan address this question of what does
8 that total requirement look like?

9 MR. AUGUSTINE: No.

10 MR. BELCHER: One possibility I think Ann
11 raised yesterday, which I thought might be a way to kind
12 of get there but without giving the number, because I
13 agree once you've got a number, then it's -- but what
14 Ann had suggested yesterday, which I think is a really
15 interesting idea, and it goes more to the White House
16 meeting, which also I think does what you're trying to
17 do, Steve, is to go to what -- I mean, pick one of the
18 commissions.

19 It could be -- there are four of them, and they
20 all essentially say, "Here are the challenges that we
21 face in this country with respect to transportation."
22 And in each of those, there are ways that technology can
23 help address the problem that's identified.

24 And so maybe rather than -- maybe what you do
25 is you take the opportunity with the White House to talk

1 about "Here are the challenges that everybody agrees we
2 face. You, the White House, at this point clearly don't
3 want a \$500 billion bill or a \$700 billion bill. Here
4 are some ways that you can address this through things
5 that currently exist." Use that as a platform, really,
6 to elevate the discussion and to try to give the White
7 House and give the country the ability to get back into
8 the competitive game.

9 That may be a different approach to getting
10 where -- it's not exactly where you wanted to go, Steve,
11 but it seems to me that's at least almost there.

12 MR. DENARO: What we're talking about, and I
13 think, Steve, what you were suggesting, is another
14 subcommittee to address this. We don't need to solve it
15 here.

16 I think your comments are good ones, Scott, and
17 Robin, yours are, too, as to what is it that we're
18 talking about. Whether this is a focus topic for the
19 White House meeting or not, my opinion would be that it
20 should be. I think that's something a subcommittee
21 could deal with.

22 MR. DROBOT: Isn't the topic part of barriers
23 to deployment?

24 MR. DENARO: Or barriers to deployment are part
25 of this, yeah. I mean, they're related, but to have

1 focus on this subject, I think, was a good one, because
2 when I just asked the question about the strategic plan
3 that exists, Rob reminded me that the strategic plan is
4 a research plan.

5 Again, we're talking about if our metric of
6 success is deployment of an effective and competitive
7 system, whatever is part of that system, then by
8 definition we're facing again this bridge of development
9 or research and development and deployment, which maybe
10 is down at the state level and so forth. To have that
11 discussion at the White House level of how all this gets
12 done --

13 I mean, come on. The elephant in this room is
14 funding. And whether that funding is at the federal
15 level or whether it's somehow allocated at the state or
16 local level, whatever it takes, we heard a number of
17 times today already, and some yesterday, that some of
18 the limitations -- often the limitations are funding
19 what we can get done, and that's a barrier to getting to
20 where we need to get to.

21 And if we look comparatively or competitively
22 to what Barcelona is doing or Gothenburg or whatever
23 area you're talking about in Europe or Asia, or
24 whatever, you'll find that their budgets relative to
25 other things they spend on are rather impressive. So to

1 have these discussions at a higher level makes a lot of
2 sense.

3 MR. CALABRESE: I think what we're talking
4 about -- and when I look up there at these five bullets,
5 I don't see it -- whatever we come up with, we've got to
6 be able to sell. So maybe we need a marketing
7 subcommittee. I think that's what we're talking about.
8 Where is the marketing here? We have a great idea, and
9 we're going to need either funding or need to integrate
10 that into existing funding. Somebody has to come up
11 with a plan how to market this, how to sell this to the
12 administration.

13 Obviously, based on what happened on election
14 day, it will be more and more difficult to come up with
15 some big numbers and find funding for it. So maybe the
16 most important part -- maybe it's got to be integrated
17 in all of these, a whole marketing sales approach. How
18 are we going to position this for success.

19 MR. DENARO: Gen, then Robin.

20 MS. GUILIANO: Well, if Robin is going to
21 directly comment, I will defer, because I'm going to
22 bring up sort of a different angle to this.

23 MS. CHASE: I continue to be a little confused
24 about what we're talking about. Are we saying what is
25 the need in the United States for transportation in

1 general? And why would this group or RITA have anything
2 to do with the general big transportation need, and then
3 to say what is the need and how can ITS support that.

4 And furthermore, what are the barriers to ITS
5 supporting those larger goals. I think now we're homing
6 down on something. But I'm not -- we're discussing
7 what's the dollar figure. Dollar figure for what? I'm
8 very confused by this conversation.

9 MR. BELCHER: Jim, can I comment on that
10 specifically? My comment is really one of real
11 politics.

12 This is all great, and if we're going to have a
13 conversation -- and it does get to what end. If we're
14 having a conversation with the White House, to what end,
15 it's probably to influence the next six-year
16 authorization bill. And we have a 50/50 chance there
17 may be one next year. That's probably optimistic, but
18 probably possible.

19 MS. CHASE: It's at the purview of RITA to make
20 that pitch.

21 MR. DROBOT: No.

22 MS. CHASE: I think it is.

23 MR. BELCHER: I think my point is if you want
24 to influence the administration in a way that can impact
25 how they invest the limited resources they've got, your

1 political opportunity is either in the next couple of
2 months, and if that doesn't happen this year, then we've
3 got plenty of time, because it will be a couple of
4 years.

5 MR. DENARO: Good point.

6 Gen?

7 MS. GUILIANO: I'm going to be a curmudgeon to
8 the extent to say that I feel that I'm in Robin's group
9 here in terms of we have to be careful in terms of going
10 back again to sort of advocating a policy position,
11 which, I think, is sort of beyond the purview of this
12 group.

13 Having said that, Joe, great job in terms of
14 synthesizing. I was really impressed.

15 I was sitting here thinking about how we get
16 our hands around things in terms of what we expect the
17 JPO to do and what our goal might be. If we think about
18 what the federal government's role is in ITS, I would
19 say that it has kind of two dimensions.

20 One dimension is what I'll call support of
21 public-sector activities. So traffic management,
22 compliance enforcement, system management, et cetera,
23 are the things that the public sector does. And there's
24 a federal rule for facilitating that through ITS:
25 research, development, deployment.

1 Then there is another role, which is basically
2 to facilitate private-sector activities. This is an
3 area in which the private sector has a really major
4 role, and that has to do with facilitation. So that's
5 where standards and interoperability come in. That's
6 where demos come in. That's where possibly seed money,
7 initial investments come in to seed the private sector.

8 And so if we sort of think about those two
9 roles and what ITS can do in those two roles and how the
10 JPO can facilitate those two things, then I think your
11 performance criteria sort of falls out. As I was
12 looking at your performance criteria, most of them I
13 could sort of group into supporting public activities,
14 supporting -- you know, facilitating private
15 development.

16 So just as a kind of a modification to your
17 wonderful work, I was thinking that that might be
18 helpful.

19 The other point that I'm not sure came through
20 that we talked about yesterday was the absence of what
21 we were calling strategic thinking, the sort of facing
22 up to tradeoffs. If you do one thing, you may not be
23 able to do another. Everything has an opportunity cost.
24 I think we were suggesting that that would be -- that is
25 a role for the JPO, to really face up to develop

1 strategic thinking about the choices that you might make
2 in this realm. That's all for me.

3 MR. SWEATMAN: I think that's a great comment,
4 Gen. I wanted to comment on that, too, on the strategic
5 side. I really like everything, Joe and Rob, you put
6 together. I think it covers it really well.

7 But it seems to me, and I'm not sure to what
8 extent this is our role and maybe we'll find out, I
9 would like to think that we have a strong strategic
10 role. I guess what I heard coming out strongly,
11 particularly this morning, from the JPO was that
12 currently we're all about connectivity, and personally I
13 think that's a real good thing. I think it's a good
14 strategic thing, but it's got to be more than a
15 four-year kind of activity.

16 So what happens beyond that? Joe, I think you
17 mentioned the "intermodal" word. Maybe what we're
18 talking about strategically is connecting between --
19 connecting within modes and/or a limited stand across
20 modes, but eventually we want a totally intermodal
21 connect system. There's also that "automation" word
22 somewhere out there as well.

23 And I think it would be very helpful -- I think
24 a great role for this committee, and I hope we can do
25 it, would be to think strategically beyond connectivity,

1 what comes next, how does that fit in with whatever else
2 is coming we want to do in the future.

3 Therefore, maybe we need a subcommittee to look
4 at strategic issues.

5 MR. DENARO: I see that as similar to what you
6 were saying, Steve, in terms of an overall vision and
7 that sort of thing. It sounds like those two are
8 related.

9 Jim?

10 MR. VONDALE: Again, I thank you for the work
11 you did to summarize and put together some of the key
12 thoughts. And I think, looking at subcommittees, there
13 seems to be general agreement about having
14 subcommittees. I think you have some very solid ideas
15 in terms of what those committees should be.

16 I also saw a lot of good things in your
17 performance criteria in terms of how we would evaluate
18 this effort. I just want to talk about the context of
19 how we would use that criteria and just make a
20 suggestion of how we might move forward.

21 I think part of the struggle I'm having, and
22 maybe others are having, is this is such an enormously
23 complex and broad endeavor. We're even after all this
24 time just scratching the surface of understanding what
25 it is that is going on. I probably know as much or more

1 than most people because I spend a lot of time at least
2 on the safety side, and I have an obvious bias in favor
3 of the way the program is going. But it seems to me,
4 you divided it up into safety, mobility and environment,
5 and we have an opportunity coming up in March where
6 we're going to be able to deep-dive potentially and
7 learn a lot more about the safety effort.

8 It seems to me if we can use those criteria
9 after we've learned more about what the safety effort
10 really is, then we would be able to provide some useful
11 advice, and I'm not talking about tweaking. There are
12 some fabulous opportunities in the safety arena. They
13 are also some of the most significant challenges I've
14 ever seen in 30 years of working in safety as well.

15 I think this committee taking a fresh look at
16 what's going on in the safety arena, then mobility and
17 maybe then environment could really add some -- using
18 the criteria that you've set forth to try to add some
19 value.

20 I'm trying to think of a context. I do think
21 this committee needs more information to be able to
22 provide even more useful information. There's a lot of
23 good ideas that have come out. I think if we get more
24 familiar with the program, it can be even more useful
25 and more strategic. So I think we need a context for

1 moving forward.

2 MR. TOTH: Joe talked about a need for
3 marketing. I guess my feeling is with respect to the
4 public, I'm not sure we're going to need to market this
5 to the public in general. If they come up with a system
6 like Barcelona, they're going to be very happy with us.
7 I think who we need to market this to are the people who
8 are going to have to pay the bill and also the people
9 who are going to have to deploy it, which is Congress,
10 the state DOTs and to a lesser extent transit agencies,
11 state legislatures and so on.

12 It's sort of a question I have to the FHWA,
13 ITS, JPO people. Do we think -- we all in this room, I
14 believe, believe in the fact that ITS is a very -- this
15 is all a very valuable thing to do. It's going to save
16 lives. It's going to reduce costs.

17 But do we think that the case is spelled out
18 enough? Do we have enough data to go to Congress, which
19 is going to be looking to do more with less and be able
20 to say, "Here's some hard facts. We put \$1 billion or
21 \$2 billion a year into this kind of system, here's what
22 we think the number of deaths are going to be reduced
23 to. Here's what we think congestion is going to be
24 reduced to compared to building freeways," yada yada
25 yada.

1 Is that case there, and if not, then perhaps we
2 should develop that case because that's the only way
3 we're going to get money.

4 MR. BERTINI: It's not there because that's
5 what our research is doing. Our research program is
6 laying out to answer those questions. Gen mentioned
7 some of the roles the federal government plays, but the
8 one role she didn't mention is regulation. So much of
9 what we're doing in the safety area is research right
10 now. The safety pilot and the other pieces, V2V and
11 V2I, will answer those questions to determine whether,
12 for example, DOT will enact some sort of regulatory or
13 in incentives program.

14 In terms of our communications with Congress,
15 whether we're talking about reauthorization or just
16 ongoing communications, there's really one person, Roy
17 Kienitz, the Undersecretary, who is the point person on
18 that. We cannot and we do not reveal our internal
19 plans. The President will be releasing a budget next
20 month that will contain some of our thoughts from the
21 Department of Transportation.

22 Our office cannot communicate directly with the
23 White House nor with Congress about longer-term funding
24 needs or ideas. There are others who do that. The
25 Undersecretary's office is the place where that happens.

1 So I was kind of answering your question, and
2 I'd be happy if any of the other staff wanted to chime
3 in. But also kind of answering the more broad question,
4 we can't advocate. That's not -- that's
5 actually illegal.

6 MR. TOTH: But this committee can, really, and
7 so that's what I'm sort of suggesting. Joe talked
8 before on one of the slides about the bully pulpit. We
9 have the data. We can come out and strongly advocate
10 for certain things. And I know you're doing some of the
11 research -- I saw it in the materials you sent -- on the
12 safety part of it.

13 But what about the congestion? I know that
14 there was a report that came out about five years ago
15 from TRV that talked about the value of a billion
16 dollars' worth of investment in truck and signal
17 infrastructure would be equivalent to -- and I forget
18 the multiples -- literally five, six, seven times the
19 investment in hard capacity in freeways. I think this
20 committee could use that kind of information.

21 MR. BERTINI: I would say the tradition of the
22 ITS program long before I arrived was focused on
23 evaluation as a part and parcel, as a thread woven
24 through the entire history of the program. So in the
25 past, there is a robust archive of evaluations of demos

1 and pilots and modal deployments and so forth. And
2 within the mobility area, when you're talking about
3 congestion, safety improvements also reduce congestion
4 and so on.

5 But in our mobility area where we will be
6 launching some specific mobility-related applications,
7 evaluations of those and the research that will be done
8 as part of those projects will include measurements and
9 estimations of the benefits of those programs, which
10 would include reduction in delays, reduction in
11 emissions and improvement of safety as well. Those
12 facts for some work do exist.

13 MR. TOTH: How soon can we get those?

14 MS. BRIGGS: We have a very robust database on
15 our website. If you want, we can send you all books on
16 this. We have a nice compiled book that's a couple of
17 years old now. Our website has a database of ITS
18 benefits, costs and lessons learned. You can go search
19 it on whatever category you want. It's pretty
20 extensive. You can get down into some pretty detailed
21 stuff. I invite you to visit that database. We can
22 send you the links. If you want, we can ship out our
23 hard-copy books.

24 MR. BERTINI: We can do a quick -- you know, at
25 a future meeting or a subcommittee or whatever do a

1 briefing or a demo of how that works. I'm glad to do
2 that.

3 MR. AUGUSTINE: What I heard, Gary, is slightly
4 different, I think. Maybe it's true we do have a lot of
5 that material, a lot of scientifically based. We don't
6 like to throw out numbers and say it was a guesstimate.
7 It has to be rigorously evaluated and say it was 10
8 percent or 11 percent, whatever the figures are. What I
9 thought I heard was the simplified one-pager, not
10 sending someone to a database to extract it.
11 It's helpful for someone who would say, "I just want to
12 talk about transit" or "I want to talk about active
13 traffic management" or some discrete element in the
14 transportation environment to speak to. But maybe we're
15 talking about at a higher level the simple fact sheet
16 that an advisory committee member could say, "Well, you
17 know, investments in this technology generally produce
18 two-to-one return on investment" or something more
19 usable.

20 Did I hear you correctly?

21 MR. TOTH: Absolutely. I'm thinking about this
22 at several levels. For instance, the people at the MPO,
23 that every year have to defend the technical expert's
24 proposed budget before the elected officials come in and
25 say, "Oh, no, no, no. My consumers want relief on the

1 highway. They want me to fix that bottleneck," that
2 kind of thing. Yes, absolutely a one-, two-,
3 three-pager.

4 MS. BRIGGS: We've been working on a
5 presentation on that, too, so we can get something to
6 you.

7 MR. DENARO: I just want to throw a dose of
8 reality into what we're taking on, whether it's the
9 White House meeting or whatever else we do. We're
10 spending a good intense 12 hours here over these two
11 days. We leave to go back to our day jobs. Even the
12 subcommittees, we'll volunteer. We're all volunteers.
13 We'll spend some time, but, come on, realistically we're
14 going to spend a few hours here and there on these
15 things. I don't believe we're going to be able to do a
16 good job at something like estimating what a total
17 budget would be or whatever. Even the idea of coming up
18 with a vision and a strategy, that's going to be tough,
19 I think, with the time that we've all got available as
20 volunteers.

21 My comment is let's make sure when we make
22 decisions on what we're going to take on here that this
23 is something we can swallow. I'll give you a practical
24 example. If we're talking about platforms, certainly as
25 a subcommittee, we're not going to go design some

1 architecture and put that together even if we get
2 outside experts to help us. We're not going to do that.
3 We're going to be more subjective. What we're going to
4 be saying in terms of advice from that subcommittee is
5 that "We have these kinds of concerns about what we're
6 seeing, the direction, and so forth. This needs further
7 work, perhaps." So that's going to be the nature of our
8 input, I believe. It's going to be more subjective.
9 Let's just make sure we keep a dose of reality in what
10 we're talking about.

11 MR. DROBOT: I think he did a very good job of
12 summarizing the issues that we face. When I look at
13 what's in front of us, I feel uncomfortable with having
14 five subcommittees in the first place because this is a
15 limited group. That's number one.

16 Number two, I would say where I have seen
17 something like this work best is, in fact, the ability
18 to put additional people in the subcommittees who are
19 not members of our committee in the first place. That's
20 important. So you have the subject matter experts that
21 can, in fact, support you, and have one other dimension
22 in doing that, to pick people who actually bring some
23 resources with them.

24 If you have on a subcommittee, let's say, a CTO
25 from Ford or something of that sort, you're lucky

1 enough, he can assign a staff person who can actually do
2 a little bit of homework that helps us. How you do the
3 composition, I think, is fairly important.

4 What I would actually suggest when I look at
5 these subcommittees is that we really end up with three.
6 I would say platforms is a subset of technology
7 strategy, not something off by itself. I think that
8 overall technology strategy that the JPO is taking is
9 fairly important, so I'd say that's the right heading
10 for it. The whole issue of standards and harmonization
11 in a global environment, I think that stands on its own
12 essentially, I think a very important thing to have.
13 And then when I look at overall program evaluation, I
14 think of barriers to deployment, the cost, things of
15 that sort, you know, really, how well this is all
16 understood really to be a subset of that subcommittee,
17 essentially. What I would say is technology strategy,
18 standards and harmonization and overall program
19 evaluation and fit everything else under those three
20 headings, essentially.

21 Now, I think in context, and I've mentioned it
22 privately in a few conversations, I see something
23 missing from our dialogue. For a research organization,
24 I think of research as a way of answering questions that
25 have not been answered before. It is, therefore, very

1 important to be able to articulate what those questions
2 are. Because when I look at John's presentation, for a
3 hundred million dollars, I counted 34 discrete programs
4 in there, and if you branch them into individual
5 projects, I suspect you may be running close to a
6 hundred projects with a hundred million dollars.

7 It begs two questions. That is, is this stuff
8 prioritized the right way and is the program actually
9 answering the right questions and how does it go about
10 choosing what those questions are?

11 Complex world. You know, it's hard for us
12 spending 12 hours once in a while to understand it. I'm
13 sure there are all kinds of internal pressures on you.
14 There are funding mandates. There's a lot of things
15 that really affect what you do. But within the level
16 that you have some discretion, is it really focused on
17 the most important issues? Are those the issues where
18 either somebody else cannot do it, somebody else will
19 not do it, or there are fundamental questions that have
20 to be answered before you can even go to deployment.

21 And so I would say I would really like to
22 figure out how we get the language from you that tells
23 us what those kind of priorities are and that kind of
24 insight.

25 I would say, lastly, in a national context with

1 a \$14.6 trillion economy, of which transportation is an
2 important element, I don't quite understand how a
3 hundred-million-dollar investment is leveraged in an
4 appropriate way and whether this is the right amount to
5 be spending for the issues that have to be resolved. I
6 think we're still quite a ways from what I call
7 deployment.

8 And I'd say just as the last comment, we're
9 living in an era where the common goods, and that's the
10 electronics, the storage, software, the computer that
11 goes into making this world, are moving at an
12 exponential pace. Each of those has that kind of
13 component. Therefore, technologically things become
14 possible over time that you couldn't have thought out
15 five to ten years ago.

16 I'm somehow not getting a sense that this
17 program is balancing and taking that into account in an
18 appropriate way. I know you're all trying. I take your
19 sincerity seriously, but it's a very difficult balance
20 essentially, and this is really the time element of
21 where RITA and the JPO really focus where it can best
22 deliver value.

23 As a committee, I think we're here to help you.
24 And having the bully pulpit thing, it's within the DOT
25 building, but it is also places like the White House and

1 places like the Hill. I think we're free to sort of
2 offer our opinions there, but I think it has to be done
3 in a constructive way that actually helps you build a
4 program in an appropriate way and gets the resources
5 into your hands to get the job done. I think that's my
6 piece there.

7 MR. DENARO: I do want us to focus on these
8 subcommittees. You just made a proposal for three. I'd
9 like us to agree on what the subcommittees are going to
10 be. Let's get that piece done as quickly as possible.

11 Before we go there, Peter, go ahead.

12 MR. KISSINGER: I find substantially myself in
13 agreement with just about everything that's been said,
14 including the fact that I'm really fearful we're trying
15 to take on much, much more than we're going to be
16 capable of addressing. In that context, I guess, and
17 your point about what's the context of the role of the
18 committee, it seems like we have an ability to influence
19 budgets. But when we think about that, it seems like
20 the next real opportunity is probably the 2013 budget,
21 since '12 is already counted in the hopper, or whatever
22 that is.

23 I think we need to decide. We need to hear
24 from JPO. The committee has an opportunity to help us
25 influence the 2012 budget or the 2013 budget, and if we

1 think that's important, then I think we should use that
2 to sort of guide the development of the subcommittees,
3 future meetings and what it is we're trying to address.

4 Similarly, I think the committee has an
5 opportunity and, I think, perhaps, a responsibility to
6 take a really good look at authorization and say, "Is
7 there something more that JPO needs in order to be
8 effective to accomplish what we're trying -- what we've
9 been sort of talking about strategically? In which
10 case, again, I think we need to take the political
11 reality that Scott mentioned and decide, really, as a
12 committee we're going to weigh in on that, in which case
13 I think it would be helpful to hear what the
14 administration proposal is.

15 MR. BERTINI: You'll hear in February.

16 MR. KISSINGER: And I think just a lot of this
17 stuff we've been talking about seems like very long
18 term, in which case if that's what we decide, that's
19 fine, but, you know, let's put it in the right context.
20 We're going to try and influence something that relates
21 to budget at such and such a time, we're going to try
22 and influence the reauthorization of the program or
23 we're simply going to provide long-term strategic
24 direction for whatever purpose.

25 MR. DENARO: And I said that budget and funding

1 were perhaps the elephant in the room. But having said
2 that, I don't think budget is the only issue that we're
3 dealing with and quite, frankly, is probably the most
4 difficult thing to attempt to influence. Scott did
5 point out that reauthorization was an opportunity, but
6 then we've got a very finite window to approach that.
7 But if you look at some of these other subcommittees,
8 the idea of platforms, standards and harmonization,
9 sure, budget is a part of that and could be a big help
10 to all of those things, but JPO could also reorient
11 priorities within the budget they've got with respect to
12 some of these issues that we feel are not being dealt
13 with sufficiently or something like that. I think we've
14 got both of those, reorientation of priorities within
15 the current budget as well as unrealistic expectations
16 of what would be done toward deployment with the
17 existing budget.

18 MR. KISSINGER: I understand. But I think this
19 committee has to decide what we're working on, what
20 we're not working on, what the priorities are. And with
21 the strength of reauthorization, I would contend that
22 there probably are some opportunities for adding
23 additional authority to JPO. It would be a shame -- if
24 this committee agrees with that, it would be a shame to
25 miss that opportunity because we put it as a lower

1 priority and we have another reauthorization.

2 MR. DROBOT: Let me be very specific on a
3 couple of things. When I look at reauthorization,
4 whether it happens in this window or not, a lot of the
5 language will be put together, and if you're not at the
6 table creating the language, it's much harder to get it
7 in even if it's delayed by a year.

8 On a second part, if I look at the JPO and the
9 rules it operates under and I look at other departments
10 of the U.S. government, they have a much broader charter
11 and an ability to escape some of the procurement rules,
12 things of that sort, in actually performing the research
13 function. This, I think, hamstringing the JPO in a very
14 considerable way. So thinking of that kind of language,
15 I think that's absolutely essential in some sense for
16 the health of the organization, the ability of what it
17 can do.

18 MR. DENARO: Gen?

19 MS. GUILIANO: I'm going to impose reality
20 again. Given what happened in the election in November,
21 this program along with everything else, is under, in my
22 view, tremendous threat. Anything that is not
23 absolutely essential to keeping the highway system
24 operating is subject to going out the door. And so in
25 that context, to me, what's really important is to

1 examine the effectiveness of what the JPO is doing.

2 And so I'm going to go back to performance
3 criteria as being really important. What exactly is the
4 effectiveness of the program as it has been constructed?

5 How might it be improved? If it's -- I think that's
6 what we need to be looking at. What is its significant
7 contribution? How are you going to justify yourself
8 when it comes time for zero-based budgeting? I mean,
9 that's actually where we are. So in terms of reality, I
10 think we need to focus on that.

11 MR. DENARO: Any comment?

12 MR. SUSSMAN: I took the liberty of putting
13 that singular graphic back up. How is the federal
14 program performing? What is its job? Is it doing it?
15 And there are 13 or 14 criteria.

16 I think Robin wasn't done.

17 MS. CHASE: Even though we're really short for
18 time, I do want to say, this team here from JPO and
19 RITA, I want to acknowledge that you have done -- you
20 tried really hard to be responsive to what we had said
21 before and I appreciate that. That was a lot of work.
22 So thank you. You heard us, and you tried to address
23 those issues.

24 I want to agree with what has been said here,
25 and when I look at what is our role and trying to think

1 about this JPO piece, JPO or RITA is supposed to be
2 supporting general policy goals, playing with what
3 private-sector roles play, standards creation and
4 regulation and creating platforms that facilitate
5 private-sector participation. Going to your point where
6 we're now at a really, really tight budget, I think
7 that -- one more piece, I feel quite uncomfortable,
8 listening to Joe here, how we're going to evaluate you
9 when we've never told you a year ago or six months ago
10 that's how we were going to evaluate you. It feels very
11 unfair to me to be evaluating with a criteria that
12 wasn't known beforehand.

13 So a criteria that I suggest, that Gen was
14 saying, is that we say we have a hundred million dollars
15 or some specific budget. JPO/RITA is the research arm
16 for the U.S. Department of Transportation. What should
17 its goals be and where should we be focusing? Is this
18 money, the small, discrete money it has, well
19 distributed and prioritized within those goals? And I
20 feel -- for me, I would be comfortable to decide at the
21 end of this meeting what is it we're evaluating.

22 MR. DENARO: Let me go just quickly back to our
23 charter that set up this committee, and it talks about
24 how we can do things, conduct studies, inquiries,
25 workshops and so forth. It says as a minimum we'll be

1 expected to provide input on aspects of the strategic
2 plan, and then it says review areas of ITS research
3 being considered for funding by the department and
4 determine three things: one, whether the activities are
5 likely to advance either ITS state of practice or state
6 of the art; two, whether ITS technologies are likely to
7 be deployed by users, and if not, determine what the
8 barriers to deployment are; and, three, the appropriate
9 roles for government and the private sector in investing
10 in research and technologies being considered.

11 And, you know, when I look back at those, those
12 are not bad goals for us to consider and focus on. And
13 it kind of gets to your point, Robin, about what our
14 charter is. In a sense, I'm feeling we need to go back
15 to our basics here in terms of where we are. I think a
16 lot of what we put up here folds under those.

17 MS. CHASE: I like that a lot. And if I were
18 to evaluate based on that criteria, we should feel quite
19 good about it. I feel that there is a lack in -- I
20 think we need to do a technology thing, technology scan
21 to see if this DSRC and safety work continues to be on
22 track. And I want to also separate out the
23 communications aspect of it from all the other
24 components that go into that safety work. And I
25 think -- I believe they refined it that DSRC is no

1 longer a relevant piece.

2 I think to the subcommittee concept, I would --
3 I think we do need to have a standards creation one and
4 another one of the platforms so that we can leverage the
5 private sector's dollars, because one of the things we
6 know for sure is that we are dramatically underfunded.
7 So how can we best spend those limited dollars left?
8 And I'm quite concerned -- I feel one of the priorities
9 for RITA should be infrastructure financing and what are
10 the platforms that are required to facilitate
11 infrastructure financing.

12 MR. DENARO: I do want to get back to our
13 discussion of subcommittees that I said earlier,
14 although I have one point I want to ask first.

15 Joe, do you have something?

16 MR. SUSSMAN: Robin, I hear what you're saying
17 about criteria. I suggest you might want to look back
18 at the documents we produced at our first meeting,
19 because that's where those criteria all came from. So
20 to suggest that these fell from the sky is simply
21 inaccurate.

22 MR. AUGUSTINE: I was just jotting down some
23 notes on all the comments. What I want to do is just
24 clarify a few things because a lot of the comments I
25 think were very good, but the perspective jumped around

1 a little bit.

2 So one issue was the criteria on giving advice
3 back to the program. I think those are very fair
4 criteria, and we're open to those kinds of things. Then
5 the point is what would be the point of that. Would
6 that be changing the strategic plan or changing the
7 budget? And if it's the budget, would it be this year,
8 next year, the following year or long term, or is it
9 changing the focus of the program from authorization?

10 These are all good comments, and I think we
11 jumped around a lot. I think the answer is yes to all
12 of them. You can provide guidance to us on how we can
13 think through how we allocate the next couple of years.
14 You can say, "You internally should change the focus of
15 your strategic plan to address a couple of issues." It
16 could be to say the next authorization should include a
17 piece that's not included or simplify something that's
18 too cumbersome. You've covered a lot of ground. I
19 would just say be careful.

20 And Adam covered other things. Should you be
21 advocating to the Hill or to the White House or to the
22 department? So you have a lot of flexibility. I guess
23 the problem is maybe that's a lot to think about, about
24 what should the role be. My guess would be you can
25 choose all of them, but just make sure you're focusing

1 your energies on the right piece. We're receptive to
2 things that the Hill may -- you would go with a
3 different message. Choose your audience and choose the
4 guidance.

5 MR. DENARO: I think with respect to the White
6 House meeting, for example, we're making some
7 assumptions in this room about what we might choose to
8 bring to that when we talk to Aneesh Chopra. He may
9 have a different idea about the focus he wants there.
10 So I think we need to defer ideas about what we might do
11 in that meeting to maybe these pre-meetings that we have
12 with him to really nail down what makes sense there.

13 One thing I want to do upfront is I want to get
14 on the table and have us make a decision, because I
15 think it's an important one -- we do have this
16 reauthorization opportunity. And, frankly, my
17 opinion -- just my opinion -- we don't have any ability
18 to influence a 2011 or 2012 budget. That's not reality.
19 Whether it's Gen's reason, because of zero-based
20 budgeting, or whatever else, frankly, I think it's
21 getting into an area where we might not be effective.

22 But when it comes to reauthorization, that's a
23 different thing, because, again, as Adam said, it's the
24 words that go in that thing that could be very
25 important. One sentence in there changes all kinds of

1 things downstream. If we can influence one sentence
2 that we think is important, that would be good.

3 So the question I want to ask -- and I want
4 your help, Scott, on this -- is, first of all, as a
5 committee, do we want to address that opportunity to
6 provide timely advice concerning reauthorization of what
7 this committee thinks should be considered in
8 reauthorization? And if our decision is yes to that --
9 and we can decide no -- then, Scott, help me with the
10 deadline for doing that, because that's an issue. I
11 think you said a month or two.

12 MR. BELCHER: I think there are a couple of
13 things. I think, first, as Rob said, the administration
14 is going to submit its authorization proposal in
15 February with its next year's budget. So one idea just
16 with respect to that is we could have a presentation on
17 the budget, at least a component of the budget, that
18 affects the ITS program. And it seems perfectly
19 reasonable if we could agree, which agreeing on anything
20 in this group is challenging, that there are two or
21 three things about that authorization proposal that the
22 administration is doing that we either adamantly support
23 or we think is misguided or we think is different.

24 There's no reason that the committee couldn't
25 submit a letter to the Secretary. And also because of

1 our position, that letter would go to the House of
2 Representatives, and we could -- we can stand alone as a
3 separate body and have opinions about that and be
4 another voice in the discussion.

5 I think the timing -- I don't think we're
6 behind -- too far behind in that, because once the
7 administration gets a proposal out, it will really be

8 the first one out there for this term because Chairmen
9 Oberstar's proposal is gone. Mr. Mica is producing his
10 own proposal. The Senate is producing a proposal
11 that -- who knows when that will come out. I really do
12 think the first one that will be out there will be the
13 administration's, so I do think you have an opportunity.

14 MR. DENARO: And I would suggest, too, again, I
15 don't think we need to think strictly about looking at
16 the dollars when we talk about reauthorization. I mean,
17 I'll just throw out something as an example. We could
18 say the direction that the program has moved in terms of
19 data being -- aggregating data and that sort of thing is
20 laudable, but we believe the only way that's going to
21 succeed is with a serious attack on standards to make
22 that happen, and that means cross-organizationally
23 throughout the nation and all levels, which is a big
24 challenge. And we feel that this reauthorization should
25 enable the JPO to be able to invest -- whether or not

1 it's a standards organization but to make those
2 standards happen. I'm making this up. We could come up
3 with something like that that's not necessarily talking
4 about you're not spending enough in this area. It could
5 just be an emphasis thing.

6 MR. BELCHER: I think you have to be very
7 specific in what it is. ITS America has a
8 reauthorization proposal that we submitted and that we
9 will continue to promote through this that talks about a
10 movement to perform its management and the need for
11 collecting data to do performance management. It talks
12 about a need for dedicated funding for system operation
13 and deployment. And we talk about how much we think for
14 that. It talks about a program very similar to the
15 safety pilot that talks about deployment, and I think
16 Adam was talking about this yesterday. It talks about
17 broad-scale deployments where you can learn the lessons
18 that come with that, but it's broader than IntelliDrive.
19 It would be about pricing, it would be about multimodal
20 integration and it would give you some places, some
21 laboratories, broad-scale laboratories, to deploy. And
22 then it also talks about increasing the funding for the
23 Joint Program Office.

24 Those are the pieces that we've got and we're
25 going to promote. I don't know how -- and we're working

1 with -- we're working with the Secretary's office to see
2 if we can get those factored into that. I don't know if
3 it will be. And I don't know that those are necessarily
4 where this committee comes out, but that's a chance
5 we've got.

6 MR. DENARO: So help me, then, with the
7 specific answer to the question that -- and, Joe, what
8 I'm talking about here is an interim advice memo, a very
9 focused advice memo, that really is addressing
10 reauthorization. The committee has generated this
11 thing. We're going to have a bigger advice memo of the
12 whole program later on, but we have a timely memo here
13 affecting that reauthorization. When should be -- if we
14 were to do that, when should be our deadline? Is it
15 February 1st? February 30th? 20th?

16 MR. BELCHER: My recommendation would be that
17 the timing of our next meeting is a good one. It's
18 unclear when in February -- I don't know when in
19 February the budget submission is due. But assuming
20 that the Department of Transportation does what it says
21 it's going to do, which is to submit an authorization
22 proposal with its budget in February, if you had a
23 presentation at the March meeting and you allocated some
24 portion of the time to talk about that or to put
25 together a strategy to respond, putting together a

1 strategy to respond that has a limited number of
2 observations and very specific recommendations, I think
3 you could do it in a matter of two or three weeks and be
4 timely.

5 MR. DENARO: So the question I have for the
6 committee, then, is: What do you think about the
7 possibility of a proposal that we generate a
8 presentation at the Detroit meeting that deals with our
9 recommendations and reauthorization? We're not looking
10 at the whole world. We'll pick a few. Therefore, we
11 need a subcommittee that operates between now and that
12 meeting to generate this presentation and what those
13 thoughts are going to be. We all agree. Do we want to
14 do that?

15 MR. SUSSMAN: Do I understand that we would use
16 the administration's proposal as the base on which we're
17 making our comments? That's how I understood Scott. We
18 can't sit down this minute and start doing a memo on
19 reauthorization if we're following Scott's model of
20 waiting for the administration's proposal to be public.

21 MR. DENARO: I wasn't thinking of it that way,
22 but that's open for discussion. Regardless of where it
23 actually -- not knowing where it's actually going,
24 here's three things that the committee feels should be
25 in reauthorization, emphasizing reauthorization.

1 MR. KISSINGER: Well, there are certainly
2 proposals on the table. Somebody could throw it --
3 Scott could probably do it in a heartbeat, you know, and
4 pull together all of the, you know, reauthorization
5 proposals that are out there, and certainly that could
6 be assembled before the next meeting. I think the main
7 point is to look at what the administrative proposal is
8 in the context of (unintelligible).

9 MR. DROBOT: (Unintelligible).

10 MR. KISSINGER: Yes. I think we ought to do
11 that.

12 MR. DROBOT: But the reauthorization has a
13 different time horizon and budget, in the first place.
14 I believe they're two separate issues, actually.

15 MR. DENARO: Gen, did you have something?

16 MS. GUILIANO: I want to be clear on what we
17 may agree to here. I'm okay with having the
18 administration's proposal for the ITS portion of
19 reauthorization being presented to us and us reacting to
20 it and possibly reacting formally to it in terms of
21 advice. I'm okay with that.

22 I'm not okay with reacting to other people's
23 proposals for reauthorization, whether they come from
24 ITS America or AASHTO or anybody else. So, to me, that
25 is off the table.

1 The third option that I thought I heard is
2 given what we understand about the ITS program at this
3 point, is there anything that we would like to, in
4 general, suggest in terms of changes, improvements,
5 whatever, that would be part of consideration for
6 authorization? I'm okay with that as long as we feel
7 that we are in a sufficient state of information to
8 provide informed advice.

9 MR. DENARO: You summarized what my thoughts
10 were identically. Thank you. I agree a hundred
11 percent.

12 MR. BELCHER: I think you're absolutely right.
13 I think the important thing for all of us to realize is
14 that the bill will be very general. And the parts of
15 the bill that implicate ITS will not just be in one part
16 of the bill. It won't be just the ITS provision. And
17 so it may take stepping back and looking more broadly in
18 the way you talk about it.

19 MR. SUSSMAN: Gen, you're suggesting that we
20 have before us now sufficient information for this
21 committee to write and agree upon what our opinions on
22 reauthorization is relative to the ITS program?

23 MS. GUILIANO: No. I said if we felt that we
24 were in a sufficient state of information, I would
25 support that. If, for example --

1 MR. SUSSMAN: You think we are now?

2 MS. GUILIANO: No, I don't.

3 MR. SUSSMAN: So we can't walk out of this
4 meeting and start working on that.

5 MS. GUILIANO: Well, let me give one example.
6 Suppose we do have a committee on standards and
7 harmonization, a subcommittee, and they come back at our
8 next meeting and say, "This is what we see as the state
9 of what's going on in this particular area, and this is
10 what we think probably should happen to facilitate
11 standardization in a more effective way." That could
12 happen. Then we all as a group say, "Yeah. You know,
13 that sounds good. In fact, it sounds so good that we
14 feel that this should be formally presented to Congress,
15 to the administration as something they should consider
16 in reauthorizing the program."

17 MR. DENARO: Scott had a good point. The words
18 that go in there are kind of general. They're all
19 really meaningful, because if they make it in, then
20 things happen based on those words.

21 Probably, Gen, with respect to us having
22 sufficient information, I would turn that around and say
23 we should give advice on those subsets for which we feel
24 we have sufficient information.

25 MS. GUILIANO: That's right.

1 MR. DENARO: And I think there are pieces -- at
2 least in my mind, I think there are pieces right now
3 that I would feel comfortable making advice on. I think
4 we have sufficient information on some of the pieces
5 that we've actually addressed here.

6 MR. SUSSMAN: Do those map into subcommittees;
7 is that what you're saying?

8 MR. DENARO: What I'm proposing is -- so we've
9 got two things. I am proposing a subcommittee to deal
10 with this reauthorization advice, so some small number
11 of people who are focused on that.

12 Now, Gen's point, they may need to draw on one
13 of the other subcommittees we have who are now working
14 on whether standards or platforms or something like
15 that. But I'm suggesting the idea of a subcommittee
16 who's got a deadline to operate and say, "Whatever you
17 have or don't have, you've got this much time to come up
18 with it" and for us to agree that that's what we want to
19 say. We might discover six months from now, gee, we
20 should have said something else because we now have more
21 information, but we can't deal with that. We can only
22 deal with what we have now.

23 MS. GIULIANO: That's right. And it may happen
24 that you'll have more than one chance.

25 There's one other little piece I would like

1 clarified. Going to the issue that reauthorization is
2 really complicated, sentences have real meaning, they
3 can be anywhere in the bill, et cetera, my vision of
4 this is that we are not providing advice on a sentence
5 that should go into the bill. We're providing more
6 general advice.

7 MR. DENARO: I would agree.

8 MR. BELCHER: Two kind of realistic
9 observations. ITS America in putting together its
10 reauthorization proposal took a year of very challenging
11 arguments and fighting. And so if we think that we can
12 come up with five or six things in a vacuum that we
13 promote not seeing the bill, we're dreaming. So I
14 really do think from a realistic standpoint, if you want
15 to have an impact, you've got to respond -- we need to
16 be almost reactionary, react to what's put before you.
17 If there's something missing that this committee can
18 identify and agree on, that's fine, but I don't think
19 that this group could come up with a set of ideas or
20 proposals. And I don't think at that point it will be
21 particularly meaningful. Once the bill gets introduced,
22 then you're shaping what's already there. You're not
23 wholly changing.

24 MR. SUSSMAN: Right. And even if one could,
25 Scott, I think the prospect starting with a blank piece

1 of paper and developing that proposal, even if one could
2 do it in a period shorter than it took ITS America to
3 do, which I'm not at all sure we could do, whether we
4 could consense around it is far from obvious to me
5 having sat through two of these meetings. A more
6 sharpshooter approach may, in fact, be more realistic.

7 MS. GUILIANO: I want to go back to this,
8 because what you're actually saying -- I laid out kind
9 of three options, and what you're saying is option three
10 is something we shouldn't do.

11 MR. SUSSMAN: That's right.

12 MS. GUILIANO: I'm going to sort of counter
13 that in the sense that I don't want what we do in the
14 next, let's say, half year of this committee to be
15 driven by the reauthorization discussion, because as
16 important as it is, lots of things can be done within
17 whatever reauthorization or non-reauthorization takes
18 place. I'm going to go back to if we feel that we have
19 something to say on standardization, I think we ought to
20 be able -- we ought to say it and hope, you know, if
21 anybody listens for reauthorization, fine. If anybody
22 doesn't, that's the way it goes. But we've at least
23 made some contribution to somebody.

24 MR. SUSSMAN: I think that's right. I think
25 maybe where this starts to converge -- standardization

1 is something around which people seem to rally. There
2 may be some other points as well. And coming up with
3 subcommittees that actually take a crack at each of
4 those issues between now and Detroit is a way of
5 positioning ourselves to be in the reauthorization
6 debate, I would put forward.

7 MR. DENARO: I haven't heard everyone talk, but
8 it sounds like there's support for us attempting to do
9 something with respect to reauthorization, so a
10 near-term action, then, as a result of our
11 subcommittees.

12 I think we need to get to volunteers for these
13 various activities, but let's table that temporarily and
14 go back to the broader view now of the subcommittees,
15 and let's see if we can get agreement on what these
16 subcommittees are.

17 The proposal on the table by Adam. Joe had
18 some up there.

19 MR. SUSSMAN: Which one do you want?

20 MR. DENARO: The subcommittees you had up
21 there.

22 Adam had a modification of that. The three he
23 said were technology strategy, which includes platforms;
24 standards and harmonization, pretty much as is stated up
25 there; and the third one being the last one there,

1 overall program evaluation. If I understood correctly,
2 that included barriers to deployment, could possibly
3 include strategy and vision and also your research
4 questions that you brought up, which I think was a good
5 idea.

6 So I'm going to put those on the table as a
7 proposal of three subcommittees of what Adam suggested:
8 technology strategy, standards and harmonization,
9 program evaluation.

10 MS. CHASE: I second it.

11 MR. SUSSMAN: Those sound very good and are
12 quite consistent with what we've been talking about.
13 But I just want to nail this point, because I think it's
14 an important one: I'm presuming by selecting those as
15 the committees -- the subcommittees, I should say,
16 we've, in effect, said those are the areas we're going
17 to focus on on the critique of reauthorization. They
18 are one and the same.

19 MR. DROBOT: No, no. This is the heart of the
20 advice we're going to actually provide (unintelligible),
21 and one of the outcomes is reauthorization. That's not
22 the only thing we're focusing on.

23 MR. SUSSMAN: Are we saying the same thing?
24 It's not obvious to me.

25 MS. FLEMER: Maybe I could just say that

1 those three are the focus of this group. Let's make
2 up the focus. Out of that work, there may be
3 reauthorization-related items and
4 non-reauthorization-related items. We just need to say
5 that that's the assignment to each of the subcommittees.
6 It's not to be contained with the reauthorization phase.

7 MR. DENARO: I think my idea is to generate
8 these three subcommittees. We decide who the members
9 are and so forth. Then we're going to pluck from that
10 activity by Detroit a few things that we're going to
11 make part of reauthorization. So it's kind of an
12 interim grab of what's coming out of there by that date.

13 MR. SUSSMAN: We've decided that's where we're
14 going to develop our expertise.

15 MS. FLEMER: Now I'm confused. I thought even
16 from March we're not limiting ourselves to
17 reauthorization.

18 MR. DENARO: That's correct.

19 MR. KISSINGER: Can you just clarify how this
20 relates to the three mandates that this committee
21 supposedly has? Is each subcommittee going to look at
22 each of those three mandates, or is somehow --

23 MR. DENARO: I think you're right that we each
24 would look at all three, but as I can consider it, it
25 looks like some would weigh more heavily. For example,

1 program evaluation where we said barriers to deployment,
2 it exactly lines up with barriers to deployment. So
3 there may be different weights there, but, yes,
4 considering all three of those, likely to have state of
5 the art, likely to be deployed and appropriate roles for
6 government. I would see it that way.

7 MR. BELCHER: Just to clarify, the program
8 evaluation, the criteria that Joe put up there, are
9 evaluating and giving advice to the Joint Program Office
10 about how they're doing their job and whether they're
11 focused right. The barriers to deployment issue, at
12 least from my perspective, is different. It's not about
13 how the JPO is doing its job. It's about why is it that
14 MTC is doing these things, but Anaheim is not. What's
15 preventing Cleveland from adopting bus rapid transit?
16 That's how I saw the differences. And I don't know
17 whether you can really fold those into program
18 evaluation, but maybe I'm misunderstanding, so I'm just
19 asking for clarification.

20 MR. DENARO: I was looking at program
21 evaluation at a different level, that it wasn't just
22 evaluating the JPO program as it is. Is this program --

23 MR. DROBOT: As a whole functioning.

24 MR. DENARO: -- really going to -- is what the
25 JPO really going to handle the barriers to deployment,

1 or is it something beyond what they're doing and so
2 forth? I had a broader view. Now, program evaluation
3 might not be the right title. I will leave it up to the
4 subcommittee to flesh that out a little bit more and
5 what are the subpieces. I like the idea of keeping to
6 three.

7 MR. DROBOT: Why don't you call it strategic
8 thrust as opposed to program evaluation?

9 MR. DENARO: Let's just leave that, then, to
10 the subcommittee to come up with that. That's a
11 suggestion, sure.

12 Do we have agreement on these three
13 subcommittees?

14 MR. SUSSMAN: So moved.

15 MR. DENARO: How about that?

16 MR. SUSSMAN: Exactly how I planned it out.

17 MR. DENARO: Me, too.

18 I think what we need now is really volunteers.
19 And, again, let's remember that when we talk about a
20 subcommittee, I don't think everybody in this room has
21 to be on a subcommittee. Actually, probably that will
22 happen, but it's not necessary. Secondly, the
23 subcommittee is not made up of only people in this room
24 or members of this committee. We also have the
25 opportunity to bring in third-party experts and

1 outsiders. So given that --

2 MR. SUSSMAN: Let me further comment that
3 there's seven or eight members of this committee who are
4 no longer sitting around the table. It seems to me
5 they're prime candidates. They don't come to the
6 meeting, they get an assignment.

7 MR. DENARO: So all that said, let's deal with
8 the first one on technology strategy, what we call it.
9 What the real name is the subcommittee has to figure
10 out. But I think that is really including very strongly
11 our platform discussion and all of that.

12 Do we have a volunteer to be the leader of
13 that?

14 MS. CHASE: Not a leader, but I volunteer to be
15 behind it.

16 MR. DENARO: That's no surprise.

17 MR. KISSINGER: Is JPO going to support the
18 subcommittee in some way?

19 MR. SUSSMAN: I checked that in advance. The
20 sense was within certain limits, they could afford that.

21 MR. AUGUSTINE: Yeah. It's hard to say right
22 now. The staffing is limited. We can help provide --
23 convene meetings or provide information or connect
24 people up, but in order to do the research to say, "Go
25 run this to ground," I think we have to be honest and

1 say we we're not staffed to do that. So until we know
2 exactly what the subcommittees' requirements are, I
3 would say we have to be cautious, that the care and
4 feeding of this committee in itself is a big job. I
5 would ask the subcommittees to be cognizant of our
6 limited resources.

7 MR. SUSSMAN: I misunderstood your question. I
8 was responding to a different question, which is can JPO
9 fund travel for the members of the subcommittees to be
10 together, and the response to that is yes.

11 MR. AUGUSTINE: Yes.

12 MR. SWEATMAN: I'll volunteer to sit on this
13 one.

14 MR. DENARO: Was that lead this one?

15 MR. SWEATMAN: No. I said serve on it.

16 MR. DENARO: Serve on it.

17 We've Robin and Peter. Let's move on.

18 MR. DROBOT: I'd be happy to serve on the
19 committee but not the leader.

20 MR. SUSSMAN: So we have Robin, Adam and Peter.

21 MR. DENARO: Correct.

22 Let's leave the leadership aside for the time
23 being.

24 Let's go to the second one, which is standards
25 and harmonization.

1 MR. SUSSMAN: Jim, down at the end.

2 MR. DENARO: Got it.

3 MR. DROBOT: I'd be happy to support that also.

4 MR. BELCHER: As would I.

5 MR. DENARO: We have three people on that last
6 one.

7 MR. SUSSMAN: Adam on two of these.

8 MR. DENARO: Yes.

9 The third one, whatever we're calling it, the
10 program evaluation, maybe strategy evaluation, whatever.

11 MR. ALBERT: It would be reviewing and
12 preparing comments for reauthorization?

13 MR. SUSSMAN: Can't hear you. I'm sorry.

14 MR. ALBERT: Would this also be the committee
15 that you would be looking to whatever came out from the
16 administration and making comment to it?

17 MR. DENARO: Well, you know, we're really going
18 to draw on all three of those. I was going to come back
19 to that in a minute, how we wanted to do that. Let's
20 assume for the time being that all three of these
21 potentially have input to reauthorization comment.

22 Anyway, for evaluation?

23 MS. CHASE: Can I make my one comment for that
24 group? I only have one comment. I'd like that to
25 include balance of spending within JPO. How should they

1 be deciding? 80/20, 30/30/40, whatever the breakdown.
2 I feel that's part of their spending priorities.

3 MR. DENARO: Somebody else had their hand up.
4 Steve?

5 MR. ALBERT: I wasn't volunteering. I was just
6 asking a question.

7 MR. SUSSMAN: Very foolish.

8 MR. DENARO: I saw you raise your hand.

9 MR. ALBERT: Only to ask. Don't press the red
10 button.

11 MR. SUSSMAN: Can we review? We have Jim on
12 standards, and who else?

13 MR. DENARO: Jim, Adam Scott.

14 MR. SUSSMAN: Right.

15 MR. DENARO: On technology, we have Robin,
16 Peter and Adam.

17 MR. SUSSMAN: Strategy?

18 MR. DENARO: For strategy, Steve is not on
19 that. So Ann and Joe.

20 MR. BERTINI: Were you going to invite Aneesh
21 Chopra to join the technology subcommittee or create a
22 separate one?

23 MR. DENARO: I want to come back to that. In
24 addition to these three, I guess maybe it's another
25 subcommittee. I think we do need focus on this White

1 House opportunity, and I think it's separate from these
2 three.

3 MS. CHASE: I'm happy to invite him to ours.
4 Requires coordination.

5 MR. DENARO: We can do that. That would make
6 sense.

7 MR. SUSSMAN: So we're a little light on the
8 strategy. I only have two.

9 MS. FLEMER: What is our assignment by March?
10 That would help me a lot to know whether this is even
11 doable or not, whatever "it" is. I just throw that out
12 there because I'm not sure. Are we coming up with a
13 basic problem statement? In my case with an evaluation,
14 do we take the charter and say, "Given the barriers to
15 deployment that we are facing, how do we see the JPO
16 being able or unable to overcome those barriers?" I'm
17 not quite sure.

18 MR. SUSSMAN: I have some pride of authorship
19 on this, but I would suggest that the criteria, subject
20 to other people's opinions that we had up there before,
21 are, what you should be looking at, is the program
22 actually a multimodal program? Is it dealing with
23 sustainability? Is it all these overarching ideas? Is
24 it working towards institutional transformation? Is it
25 aiding in deployment? Is it aiding in standard setting?

1 Does it have a portfolio of long- and short-term
2 research, the stuff we talked about before? If I was
3 sitting there, that's what I would evaluate.

4 MS. CHASE: Is that someplace written down?

5 MR. SUSSMAN: We'll send out the PowerPoints to
6 the group. No, it's not -- it is on my computer.

7 MR. DROBOT: Robert, you've been talking to
8 Aneesh. What do you think is the right -- you've been
9 talking to Aneesh. The question is: What do you think
10 is the right way for us to interact with him?

11 MR. BERTINI: I think it's simple. Invite him
12 to join a subcommittee of this committee, and then
13 legally we can begin -- you can begin engaging with him.
14 But until that happens, until he's invited, until he
15 agrees, it's complicated.

16 MR. DROBOT: Jim, my question, would we like to
17 invite him to the standards and harmonization
18 subcommittee and see if we can do something there?

19 MR. BERTINI: My sense is that if we identify a
20 subcommittee and invite him to join it, he will join it.
21 We can come up with the exact name and the exact scope,
22 starting only then, because right now subcommittees are
23 not quite -- don't quite exist. But until the overall
24 committee says we're going to have a subcommittee and
25 invite any other non-member to the committee can you

1 begin the discussion.

2 I think the discussions we've had with him have
3 been along the lines of how do we accelerate -- he's
4 very interested in this piece of the spectrum. He's
5 wanted it to be used. How can we accelerate innovation?
6 There are a lot of entrepreneurs in this country. How
7 can we create jobs? There are pieces that he's
8 particularly interested in that, I think, span the
9 discussion about the technology strategy and maybe
10 perhaps to a lesser degree standards.

11 MS. CHASE: I'm working with Aneesh on the
12 innovation committee that talks about jobs and the other
13 pieces. But when you talk about standards, also
14 involved in that innovation committee is Pat Gallagher,
15 who heads NIST. I'd be happy to broker that
16 introduction if you'd like to include him. And I know
17 that he's really interested in these issues, in general.

18 MR. DROBOT: Sure.

19 MS. CHASE: I can do that for you.

20 MR. DENARO: My opinion is that we should have
21 a separate if you want to call it subcommittee that's
22 dealing specifically with the White House meeting
23 opportunity, because I think there's more than just what
24 are the issues. It's who get's invited. If it's about
25 deployment, how do we engage auto makers and suppliers

1 if that's going to be it? Who's going to be at the
2 table? I think there's just a lot of meeting planning
3 activities and logistics that have to be done, and I
4 think we need to focus on that separately from our
5 subcommittee work on this. Now, to inform him that
6 these subcommittees are going on and he chooses to
7 engage, that's fine, but I really think we need a
8 focused effort on that meeting back to our comment, that
9 preparation is going to be essential to get that right.
10 We only get one bite at the apple. I really want to see
11 us focused on that.

12 MR. BERTINI: One model might be, Bob, if you
13 were to invite him to co-chair that, let's say, fourth
14 subcommittee with you.

15 MR. DENARO: Yeah.

16 MR. BERTINI: Then that would allow you to move
17 forward.

18 MR. DENARO: Good point. Good point.

19 MR. BELCHER: I would defer to Rob and Robin,
20 but my experience with Aneesh is that he's pretty
21 substantive. If we think we're getting him engaged in a
22 committee that's organizing a meeting, I don't think
23 that's a good use of his time. I don't think he's going
24 to find it very valuable. He may be willing to advise
25 us and participate, but I think if you want him to help

1 the process of this committee, you've got to give him
2 something real to do or he won't do it.

3 MR. DENARO: But my idea was more like you just
4 said in terms of inviting. First of all, this
5 committee, I believe, needs a subcommittee to focus on
6 that White House meeting. In order to do that, we need
7 a couple of meetings with Aneesh to really understand
8 where he's coming from to make sure we're aligned. Then
9 we go off and do the work. We're not asking him to work
10 on that part. He's going to get some action time out of
11 it. For example, inviting the right executives and so
12 forth, we might need his help and his stature to get the
13 right people to come to the meeting. But I don't see
14 him working with any of the detailed issues in that.

15 MR. SUSSMAN: What about the idea of inviting
16 him to the Detroit meeting? We had talked about not a
17 subcommittee meeting but the whole committee meeting in
18 Detroit. Is that sensible?

19 MS. CHASE: I would be happy -- and I think you
20 have talked with him, but to ask him -- yes, I think we
21 can manipulate Aneesh some way to our ways, but I would
22 like to know what it is that he is looking for. So I
23 think that is all around does he want to be on one
24 committee versus another. Does he want to come to
25 Detroit? When he made this offer, what was going on in

1 his mind? I feel step number one is "You know what
2 we're dealing with. What is it you're interested in?"
3 And then from there, we can decide should he be on a
4 committee, should he have one-on-one --

5 MR. BERTINI: I think a lot of that has already
6 happened. He's been kind of waiting to begin the
7 conversation. He can't begin the conversation until
8 he's invited to join or co-chair a subcommittee. So
9 we've had seven or eight months of, "Yeah. We've talked
10 to the advisory committee, but they haven't created a
11 subcommittee yet. They haven't invited you to join
12 yet." I think we can compress another seven months' lag
13 into saying come up with some vague-sounding
14 subcommittee on technology acceleration or something
15 like that, and we can change the name later, but Bob
16 Denaro co-chairs the subcommittee with Aneesh Chopra.

17 MS. CHASE: How about technology strategy? I
18 feel like that's the spot --

19 MR. DENARO: It probably is. I don't mind
20 that.

21 MR. BERTINI: You can change it.

22 MS. CHASE: -- instead of adding another
23 committee.

24 MR. SUSSMAN: I'm sorry. Is that a fourth
25 committee you're proposing?

1 MS. CHASE: No.

2 MR. SUSSMAN: Is that the first one? I'm
3 confused now.

4 MR. DENARO: The first one.

5 MR. BERTINI: Technology strategy, the first
6 one.

7 MR. BELCHER: I think what you're grappling
8 with, Bob -- I do think that the three committees you've
9 organized are the right ones. I think your
10 participation with Robin and Adam and inviting Aneesh to
11 that one is the appropriate place.

12 I might recommend that you organize a fourth
13 committee that deals with authorization and the White
14 House meeting, because they're kind of -- I mean, they
15 are two very distinctly different things. They're more
16 government affairs than substance -- this is the way I
17 should describe my life -- but they are different. I
18 think if you got Peter, myself, we might get Art
19 Guzzetti from APTA, a couple of people who are -- maybe
20 Tom Bulger, a couple of people who know how Washington
21 works. They may be able to help facilitate those two
22 things, tapping into the expertise here. But it is a
23 different skill set.

24 MR. DENARO: Well, first of all, I agree with
25 the focus of that meeting. I'll volunteer to do that.

1 And, Scott, I would like your help on that.

2 Who else wanted to help?

3 What I'm talking about here is specifically
4 organizing this White House meeting. Aneesh will be
5 invited to the technology session. But specifically
6 organizing that meeting, anyone else want to participate
7 in that.

8 MR. SUSSMAN: Peter and Scott are on it.

9 MR. DENARO: Scott and me.

10 MR. KISSINGER: I can help, but I can't help
11 you much between now and the March meeting.

12 MR. SUSSMAN: So Peter and Scott and some
13 other -- Tom Bulger and some of these other people you
14 had mentioned can work on that.

15 MR. BELCHER: I just threw out some names. I
16 think we can reach out to some of the people and see who
17 might be able to be supportive.

18 MR. DENARO: But the second part of your
19 suggestion, Scott, with respect to reauthorization, so
20 that we don't get a fifth committee here, I see it as a
21 little bit disjointed with this CTO meeting, because I
22 don't know yet where that's going to head and what's
23 going to be the focus of that meeting.

24 MR. DROBOT: My feeling is Aneesh, right now
25 get him on a committee, get him in track. Let's figure

1 out what's in his head.

2 MR. DENARO: Okay. With respect to
3 reauthorization, I think what I want to do is -- you
4 said earlier that we're going to look to the outputs
5 from our subcommittees for that. My idea about that is
6 that we make that a session at the Detroit meeting, and
7 we attempt to decide from -- one of the actions for
8 these committees is each committee recommend whether or
9 not they have something that they think should be part
10 of our advice for reauthorization and we pull that out
11 of committee work as opposed to having yet another
12 subcommittee.

13 MR. SUSSMAN: I would support that. I think
14 three subcommittees is going to give us enough. And
15 getting Aneesh involved in, I guess, what's now being
16 called the technology strategy/platform subcommittee
17 will give us a chance to tap into his real interest.

18 Rob, does that make sense to you?

19 MR. BERTINI: Yeah. I think kind of simpler,
20 the better to start. The notion of having this
21 committee's vice-chair invite Aneesh Chopra to co-chair
22 a technology subcommittee of the ITS program advisory
23 program is probably enough of a statement, and that can
24 allow the conversation to start. The name can change.
25 The mission can change. That subcommittee could split

1 into two, you know, if one is going to focus on actually
2 organizing something. But getting the little seed going
3 is, I would say, the most important thing you can do in
4 the next 12 minutes, would be to agree on that. That
5 allows a lot of other stuff to move forward and lots of
6 other conversations.

7 MR. SUSSMAN: So, again, if I'm following this
8 correctly, the third committee, the one currently on
9 which Ann and Joe C. are serving, we've thrown around a
10 bunch of names, and strategy was in there, but now
11 strategy has been subsumed in the top -- in the
12 technology strategy/platform committee.

13 MR. DROBOT: No, no, no, no, no.

14 MS. CHASE: Technology strategy. The other one
15 is something different.

16 MS. GUILIANO: I would not.

17 MR. SUSSMAN: Which other one?

18 MS. GUILIANO: Evaluation.

19 MR. SUSSMAN: We called it strategy, and it's
20 not strategy anymore.

21 MS. GUILIANO: It's strategy more generally. I
22 would not be comfortable with all the, quote, strategy,
23 close quote, being discussed coming under technology,
24 because to me technology --

25 MR. DROBOT: We agree.

1 MS. CHASE: Technology strategy is different.

2 MR. DENARO: Program strategy or something. We
3 need to clarify the titles.

4 MS. GUILIANO: Yes.

5 MR. DENARO: So where we've ended up is we have
6 our three committees. We have people assigned. What
7 we'll do is we'll summarize it in e-mail so it's
8 clearer. And between Joe and I, we'll put that memo
9 together. If we misinterpret anything, please respond
10 back. But we'll summarize all that out to everyone.

11 MR. SUSSMAN: If I understood again, we're
12 holding on setting up this so-called Washington
13 committee --

14 MR. DENARO: Yes.

15 MR. SUSSMAN: -- until after Detroit.

16 MR. DENARO: We're going to get Aneesh involved
17 in technology strategy along with me. I'll join that.
18 And out of that, we'll decide what's necessary in order
19 to facilitate the Washington meeting.

20 MS. GUILIANO: Can we spend a few minutes
21 talking about the March meeting and what the agenda will
22 be? The reason I'm bringing this up is that it sounds
23 to me like we've generated a lot for March, and I'm not
24 sure that a half a day one day and a half a day the next
25 is enough time to actually get through it all.

1 What I have that I think we talked about is a
2 series of presentations, demonstrations on all the
3 interesting things going on in Michigan and ITS research
4 and demos and test beds and everything else. Then there
5 is the presentation on the administration's presentation
6 on budget and reauthorization. Then there is our own
7 reauthorization discussion, and then there is the
8 subcommittee reports.

9 I think the tradeoff is going to be how much do
10 we want to take advantage of the activities in Michigan
11 and our hours that we have versus all this other stuff.

12 MR. BERTINI: You've agreed on the subcommittee
13 setup. I think on the agenda bills we've been working
14 with Joe and Bob. Valerie Briggs has been coordinating
15 the details of the agenda for the next meeting. That
16 would include some demos. And we think we've had some
17 good suggestions about maybe other panels, kind of like
18 we had yesterday, to broaden that out a bit. Just to
19 react to that, I think we have a good framework for what
20 we'll put on the agenda. We'll keep moving forward
21 fleshing that out.

22 MS. GIULIANO: My only question was about the
23 hours available to all of us. That was it.

24 MR. DENARO: You're raising a good question.
25 I'm having a little trouble now absorbing all of what we

1 talked about and what maybe needs to be in that agenda.
2 So give us a little time to work up to the straw man on
3 that, and then we can get that to everyone.

4 MR. SUSSMAN: The question might be whether we
5 want to go to a full two days rather than a day and a
6 half. That's the operational question. We built this
7 around a day-and-a-half model. Maybe we need two with
8 all the stuff we need to report out.

9 MS. BRIGGS: Plus the demos and everything?
10 Because the demos are going to take --

11 MR. SUSSMAN: To include the demos.

12 MS. BRIGGS: Oh, to include the demos similar
13 to what we did this time.

14 MR. SUSSMAN: Except it would be a day and a
15 half for committee deliberations, not a day for
16 committee deliberations.

17 MR. DENARO: Two full days.

18 MR. SUSSMAN: Ann and Joe, I'm happy to
19 participate in this program evaluation discussion. I've
20 got some ideas on that, so perhaps that can be helpful.

21 I think we've reached the end. We certainly
22 have established some concrete steps forward. I think
23 it's in the order of eight weeks between now and when we
24 meet in Detroit. Subcommittees will have their work cut
25 out for them to start to produce materials such that

1 they can be useful as inputs to those meetings. But I
2 guess if there were concerns, and certainly the work
3 concerns and concerns for me as well, as to what, in
4 fact, we were going to do, I think we now have a model
5 for what we're going to do, and now let's see if we
6 actually do it.

7 I think that Bob and I should be free to add
8 members of this committee who did not attend to any of
9 these subcommittees subject to rationale.

10 MR. DROBOT: Absolutely. Absolutely.

11 MR. BERTINI: It's in the agenda written there,
12 but I wanted to just mention that I believe we did agree
13 to cover the next two items on your memo at the next
14 meeting, which are communications and technology. So
15 we're planning the substantive agenda to include
16 presentations from us on communications and technology
17 as we go through the list of five items.

18 MR. SUSSMAN: And I think that relates very
19 much to the other items we'll be discussing. The more
20 we talk, the more it sounds like two days.

21 MR. BERTINI: And I just wanted to thank you
22 all and, again, thank Joe and Ann and thank all the
23 staff and all the folks who made all this possible.
24 Thank you very much.

25 MR. SUSSMAN: Thanks from us as well, and thank

1 you for your efforts.

2 I think this has been a very useful meeting.

3 We've got a lot on the table. And I'm happy everyone

4 participated as vigorously as we did, those of you who I

5 agree with and those of you who I don't agree with. I

6 make no distinction. I think we're some massive steps

7 forward from where we were 36 hours ago.

8 MR. DENARO: We produced that entropy.

9 MR. SUSSMAN: Unless anyone has anything

10 remarkable to add, we are done. Thank you.

11 (Whereupon, the proceedings were concluded at

12 12:53 p.m.)

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6 That said proceedings were taken before me at
7 said time and place, and were taken down in shorthand by
8 me, a Certified Shorthand Reporter of the State of
9 California, and were thereafter transcribed into
10 typewriting, and that the foregoing transcript
11 constitutes a full, true and correct report of said
12 proceedings that took place;

13 IN WITNESS WHEREOF, I have hereunder subscribed
14 my hand this 25th day of January 2011.

SANDRA M. LEE, CSR No. 9971
State of California